AD 757 760

Center for Naval Analyses

an affiliate of the University of Rochester

Research Contribution 223

Development of the Navy Human Relations Questionnaire

Institute of Naval Studies

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

Security Classification			
DOCUMENT CONT			
Security classification of title, body of abstract and indexing 1. ORIGINATING ACTIVITY (Corporate author)	annotation must be e		CURITY CLASSIFICATION
			classified
Center for Naval Analyses		2b. GROUP	Classified
		26. GROUP	
3 REPORT TITLE		<u></u>	
Development of the Navy Human Relations Que	estionnaire		
4 DESCRIPTIVE NOTES (Type of report and inclusive dates) Racial attitude survey results			
5. AUTHOR(S) (First name, middle initial, last name)			
Peter H. Stoloff, Robert F. Lockman, Albert McKinley, LCdr., U.S.N.	S. Allbritton,	U.S.N. an	nd Harold H.
6. REPORT DATE October 1972	74. TOTAL NO. 0	FPAGES	7b. NO. OF REFS
88. CONTRACT OR GRANT NO.	98. ORIGINATOR'	S DEDORT NUMBER	L
N00014-68-A-0091	CRC 2		5 E K (3)
b. PROJECT NO.	ORC 2	120	
c,	9h OTHER REPO	RT NO(S) (Any of	her numbers that may be assigned
	this report)		not managed and may be according
d.			
10. DISTRIBUTION STATEMENT			
Approved for public release; distribution unlin	mited.		
11. SUPPLEMENTARY NOTES	12. SPONSORING	MILITARY ACTIV	VITY
	Office of	of Naval Res	search
	Departr	nent of the	Navy
	Washing	gton, D. C.	20350
13 ABSTRACT			
A questionnaire containing a wide variety of it racial attitudes in the Navy. It measures three Generalizations, Navy Climate, and Perceived between blacks and whites and officers and en	ee major kind I Discriminati	s of attitude ion. Differ	s called Racial

DD FORM 1473

(PAGE 1)

Unclassified

Security Classification

Security Classification						
14 KEY WORDS	LIN	K A	LIN	к в	LIN	кс
	ROLE	WT	ROLE	WT	ROLE	w T
Naval personnel sociology sociometrics human relations questionnaire racial discrimination psychology (individual and group behavior) racial attitudes						

DD FORM 1473 (BACK)

Unclassified

Center for ...Naval Analyses

1401 Wilson Boulevard

Arlington, Virginia 22209

703/524-9400

An Equal Opportunity Employer

an affiliate of the University of Rochester

(CNA) 402-73 5 Mar 1973

MEMORANDUM FOR DISTRIBUTION LIST

Subj: Center for Naval Analyses Research Contribution 223; forwarding of

Encl: (1) CRC 223, "Development of the Navy Human Relations Questionnaire," Peter H. Stoloff, Robert F. Lockman, Albert S. Allbritton, U.S.N., and Harold H. McKinley, LCdr., U.S.N., INS, October 1972

- 1. Enclosure (1) is forwarded as a matter of possible interest. Two of the authors are of a select number of naval officers and enlisted men with advanced degrees who, through a unique contract provision, are assigned to CNA for a normal tour of shore duty to participate in the Navy Study Program.
- 2. This research contribution should be of particular interest to those who are concerned with comparing racial attitudes in different organizations and assessing the effects of human relations training upon racial attitudes.
- 3. Research Contributions are distributed for their potential value in other studies and analyses. They have not been reviewed in detail and do not necessarily represent the opinion of the Department of the Navy.
- 4. The enclosure is approved for public release.

Herschel Kenter

HERSCHEL E. KANTER Director Institute of Naval Studies

Distribution List: Reverse page

Subj: Center for Naval Analyses Research Contribution 223; forwarding of

DISTRIBUTION LIST

CINCPACFLT	COMCARDIV	1
CINCLANTFLT	COMCARDIV	2
CINCUSNAVEUR	COMCARDIV	3
COMSECONDFLT	COMCARDIV	4
COMTHIRDFLT	COMCARDIV	5
COMSIXTHFLT	COMCARDIV	6
COMSEVENTHFLT	COMCARDIV	7

Secretary of the Navy

Ass't Secretary of the Navy (Manpower & Reserve Affairs)

Chief of Naval Research

Office of Naval Research (Code 452) (4 copies)

Chief of Naval Personnel

Bureau of Naval Personnel (PERS P; PERS Pcl(2 copies); PERS A3)

Secretary, Joint Chiefs of Staff

Navy Medical Research Institute

Navy Personnel Program Support Activity

Navy Personnel & Training Research Laboratory

Navy Personnel Research & Development Laboratory

Navy Medical Neuropsychiatric Research Unit

U.S. Naval Academy

Naval Postgraduate School

Naval War College

Commandant Marine Corps

Marine Corps Institute

Marine Corps Development & Education Command

Office of Manpower Utilization, Hq Marine Corps (AOlH)

Defense Documentation Center (12 copies)

Dept of the Army (Attn: Adj Gen'l) (6 copies)

Dept of the Air Force (Attn: PDO 4008) (9 copies)

Center for Research in Social Systems

Insititute for Defense Analyses

Human Resource Research Organization

The RAND Corporation

Systems Development Corporation

Human Sciences Research, Inc.

University of Rochester (2 copies)

Subj: Center for Naval Analyses Research Contribution 223;

forwarding of

DISTRIBUTION LIST (Cont'd)

Offices of the Chief of Naval Operations:

0p-00	Op-01	(3	copies)
Op-00K	Op-03		
Op-09BH	Op-04		
Op-96	Op-05		
Op-099	0p-06		

CENTER FOR NAVAL ANALYSES

Institute of Naval Studies
Research Contribution 223

DEVELOPMENT OF THE NAVY HUMAN RELATIONS QUESTIONNAIRE

October 1972

Peter H. Stoloff
Robert F. Lockman
Albert S. Allbritton, U.S.N.
Harold H. McKinley, Jr., LCdr., U.S.N.

This Research Contribution does not necessarily represent the opinion of the Department of the Navy.

Work conducted under contract N00014-68-A-0091

Enclosure (1) to (CNA)402-73 dated 5 March 1973

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

ABSTRACT

A questionnaire containing a wide variety of items was designed and used to evaluate racial attitudes in the Navy. It measures three major kinds of attitudes called Racial Generalizations, Navy Climate, and Perceived Discrimination. Differences in attitudes between blacks and whites and officers and enlisted men are reported.

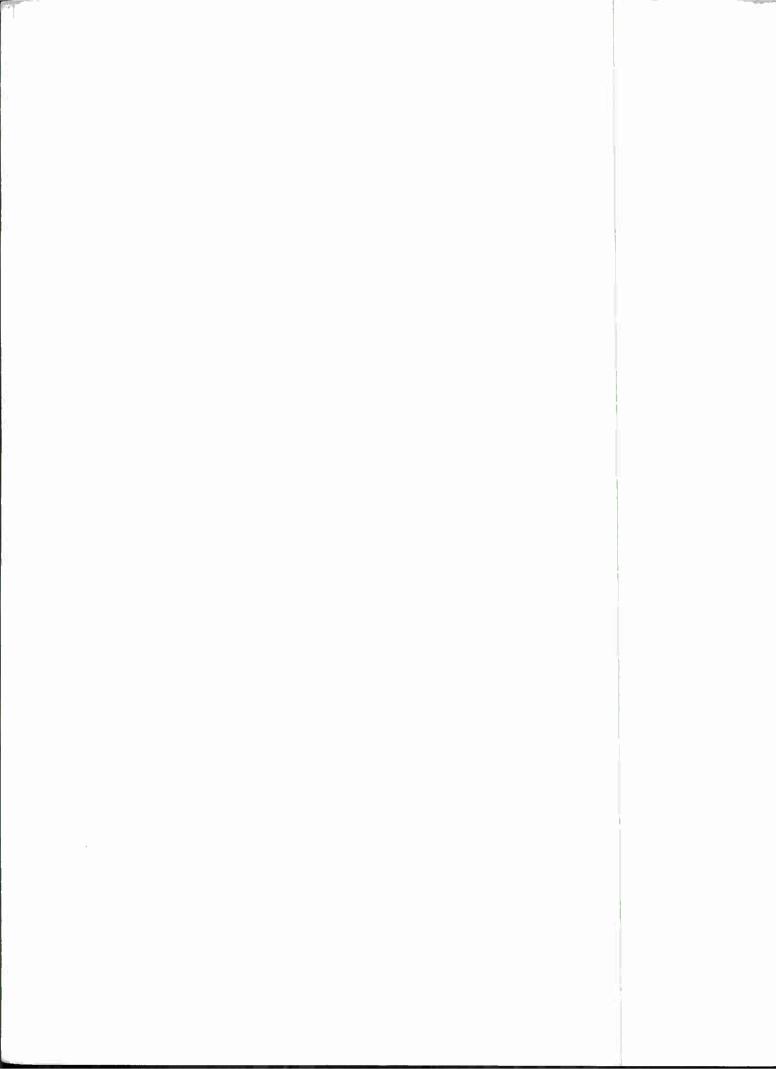
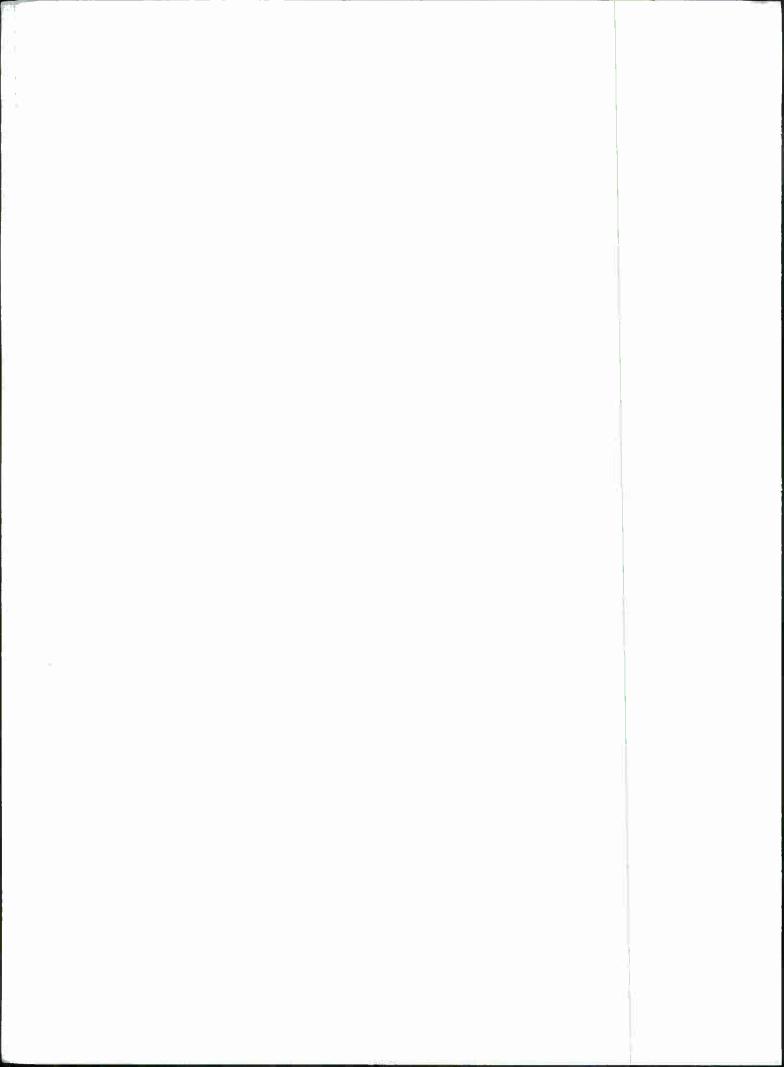


TABLE OF CONTENTS

1486
Synopsis
Development of the Navy human relations questionnaire
Introduction
Questionnaire revision
Preliminary quantification
Creating variables 6
Factor analysis
Item composites
Results 9
Major variables
Correlates of major variables
Correlates of age
Black-white comparisons
Summary
Epilogue
References
Appendix A - Navy questionnaire
Appendix B - Item list
Appendix C - Composite descriptive statistics
Appendix D - Correlates of major variables
Appendix E - List of items deleted from original questionnaire



SYNOPSIS

7

PROBLEM

We were asked to develop for the Navy Human Relations Program a technique that could be used to measure racial attitudes in different commands and evaluate the effects of human relations training. A 300 item questionnaire devised for evaluating a Marine Corps race relations training program was judged to be worth adapting for Navy use. By analyzing responses to the questionnaire, we sought to identify the various attitudes it measures, their relationships, and ultimately differences in attitudes between groups such as blacks and whites.

SUBJECTS

The people to whom the questionnaire was administered were stationed at bases and on ships on both coasts, at the Great Lakes Naval Training Center, and at the Naval War College. Approximately 940 white and 170 black enlisted men and 300 officers completed all of the items.

PROCEDURE

Item alternatives were scaled to produce metric properties that would allow computation of parametric statistics. High values were assigned to alternatives indicating unbiased, non-prejudiced, and positive attitudes; low values, to biased, prejudiced, and negatively-toned alternatives.

Rather than attempt to analyze 300 items simultaneously, we sorted them into 17 logical groups:

- 1. Background
- 2. Attitudes toward race, discrimination, and conditions in the Navy
- 3. Objections to members of various racial groups as members of the respondent's family by marriage
- 4. Personal goals
- 5. Prejudice effects
- 6. Changes in attitudes observed in the Navy
- 7. Preferences for leaders and for integrated or segregated neighborhoods
- 8. Black historical facts
- 9. Ranks helpful in personal matters
- 10. Free time spent with whites, blacks, or members of other minority groups
- 11. Unfair treatment
- 12. Fights seen during the past month
- 13. Why non-whites cluster together in groups
- 14. Recommendations for improving conditions in the Navy

- 15. Whether or not prejudice bothered the respondent a great deal
- 16. Reactions toward blacks or whites
- 17. Concepts, a variant of the semantic differential

Item intercorrelations were calculated within each group of items, the largest group being the 111 statements about race, discrimination, and conditions in the Navy. The variance associated with differences in responses of the racial groups was partitioned from the combined correlation matrix; this equally weights the responses of the different groups regardless of the number of observations per group. Examination of the combined correlation matrix before and after partitioning revealed only small changes in the coefficients and few sign changes. Next, the adjusted intercorrelation matrix was factor analyzed.

The same partitioning and factor analysis techniques were applied to the correlation matrices for other groups of items, except that Background items were not factored. Similar minimal differences were observed. Twenty-four composites were formed from the 16 factor analyses. Composite scores were computed by summing the scores for items that loaded (correlated) at least .40 on a factor. This amounts to unit weighting the items by their standard deviations, which in most cases were very similar for the items within each factor.

RESULTS

Three major composites emerged from the factor analyses of the correlations among the 111 statements about race, discrimination, and conditions in the Navy. Coefficient alpha for all three was about .90.

The first composite includes 21 items that deal with opinions about the behavior of non-whites, such as "Non-whites don't feel they have to follow the rules as whites." Since they are primarily generalizations about non-whites in society at large as well as in the Navy, we named the composite Racial Generalizations. People who agree with the statements subscribe to negative or stereotyped conceptions of the behavior of non-whites.

The second composite consists of six statements about the accomplishments and promise of the Navy in solving racial problems, such as "The Navy is firmly committed to the principle of equal opportunity," and three statements about the Navy's concern for its members, such as "Most officers try to be helpful with personal matters." Since this composite measures attitudes about the racial and leadership atmosphere in the Navy, we named it Navy Climate. Those who agree with the statements think highly of the Navy's image.

The third composite contains 13 items, most of which deal with the treatment accorded non-whites in the daily operation of the Navy, such as "Non-whites get more than their share of dirty details." We named this composite Perceived Discrimination. Those who subscribe to the statements express a belief that non-whites are subject to discrimination and injustice in the Navy and that the Navy should do something about it.

Since composites were formed from only those items that correlated highly with each factor and a unit weighting procedure was used to form them, they no longer are necessarily independent or uncorrelated. Therefore, we computed the intercorrelations among the three composites. There was a moderate relationship (r = .34) only between Racial Generalizations and Perceived Discrimination: those who do not generalize perceive that non-whites are subject to discrimination.

On Racial Generalizations, black enlisted men score highest, meaning that they are the least likely to use racial generalizations (about non-whites) - which is rather obvious. White enlisted men, on the other hand, score lowest, which means that they subscribe more to racial generalizations and stereotyped ideas. Officers' scores fall in between those of the black and white enlisted men.

On Navy Climate, both white and black enlisted men have about the same distribution, ranging over the entire scale. The officers, however, range from a moderately good to an outstanding perception of Navy Climate, and their lowest scores exceed the averages of the black and white enlisted men.

On Perceived Discrimination, the blacks clearly have the highest scores, that is, they perceive the most discrimination. The white enlisted men and officers have low scores with nearly identical distributions. In fact, most of the scores of the white enlisted men and officers are below the average score of the black enlisted men.

Next, we looked at the relationships of other items and composites in the questionnaire with Racial Generalizations, Navy Climate, and Perceived Discrimination. An item that advocates improving racial relations by greater association between the whites and non-whites correlates .50 with Racial Generalizations for white enlisted men: those who believe that more association will improve race relations do not use racial generalizations.

The semantic differential concept of "U.S. Navy" correlates positively with Navy Climate for both black and white enlisted men: those who have a favorable opinion of the Navy also have a good perception of the Navy Climate.

An item stating that racial problems could be reduced by greater association between the races correlates .40 with Perceived Discrimination for white enlisted men. The semantic differential concept of "Confederate Flag" correlates .40 with Perceived Discrimination for black enlisted men: those who dislike the Confederate Flag believe that there is discrimination in the Navy.

Racial Generalizations correlates .40 with an Attitude Change item for white enlisted men: those who do not use racial generalization report a positive attitude change towards other races and groups. "I think racial relations on the base are improving" correlates .45 with positive Attitude Change for black enlisted men.

Since attitudes may in part be a function of age, we looked at the correlations between age and the other variables. Although the median ages of the whites and blacks were similar (21 or 22 years), only 25 percent of the whites were older than 24, while 25 percent of the blacks were older than 34. Consequently, older men are represented in greater proportion among the blacks. In general, older men had higher scores on variables which

represent satisfaction with the Navy status quo, including the Navy Climate factor (.35 for whites, .52 for blacks) and dissatisfaction with symbols of black militancy - particularly in the case of the older black enlisted men. However, age did not correlate with Racial Generalizations and Perceived Discrimination.

Subsequent use of the revised questionnaire on 1500 white and 1000 black Army enlisted men who were carefully sampled world-wide produced remarkably the same three attitude factors and percentage distributions found in our Navy sample.

CONCLUSIONS

Three attitude factors called Racial Generalizations, Navy Climate, and Perceived Discrimination were reliably measured by general statements concerning race, discrimination, and conditions in the Navy in a questionnaire administered to white and black enlisted men and officers. The three factors correlated with other explanatory items and composites in the questionnaire. The revised questionnaire can be used to evaluate racial attitudes in different commands and to assess the effects of human relations training.

DEVELOPMENT OF THE NAVY HUMAN RELATIONS QUESTIONNAIRE

INTRODUCTION

The Navy has established a race relations program to promote equal opportunity and reduce prejudice and discrimination. Since prejudiced individuals are more likely to engage in discrimination than individuals who are not prejudiced (Berelson and Steiner, 1964), the race relations program seeks to identify the attitudes of racial groups toward one another and then provide human relations training to change negative attitudes.

In July 1971, the Assistant Chief of Naval Personnel for Personal Affairs (PERS-P) asked us to develop a technique for measuring the racial attitudes of Navy personnel. Such a technique could be useful in assessing attitudes of recruits and officer candidates preparatory to conducting human relations briefings. It could be useful to sea and shore commanders for better understanding of the racial attitudes of their personnel. Finally, it could be used before and after human relations training to evaluate the effects of training.

We looked for techniques that were being used or considered by other branches of the Armed Forces to assess racial attitudes (DDC, 1972) and found a questionnaire that had been devised by the American Institutes for Research (AlR) for evaluating a Marine Corps race relations training program. Since the AlR questionnaire had been prepared under contract, it was available to the Navy.

We know that attitudes measured by questionnaires usually do not correlate highly with behavior pertaining to the attitudes. This does not, however, mean that reported attitudes are invalid. In many instances, they may be more predictive of behavior than what people may feel in any deeper sense. In any case, the evidence concerning the validity of different approaches to attitude measurement clearly favors self-reports of the kind elicited by questionnaires.

Even in the absence of the an external criterion of behavior for validating the questionnaire, we can identify the various attitudes it measures, their relationships, and how groups (such as whites and blacks) differ with respect to them. This information will enable us to evaluate the content and internal reliability of the questionnaire and may even suggest possible behaviors to which the attitudes might be related.

Since we were not tied to any specific criterion or theoretical position, the fact that the AIR questionnaire sampled a wide range of attitudes made it advantageous for us to adapt it for Navy use.

QUESTIONNAIRE REVISION

Questionnaire items that used Marine Corps terms were reworded into Navy terms if an appropriate parallel existed (e.g., NCO was changed to Petty Officer). Only a few items had to be deleted because they were irrelevant to the Navy.

The original questionnaire consisted of more than 20 pages of mimeographed material. We grouped items with similar response modes (e.g., true-false items) and content together. Then the items were printed in a question booklet, and a separate answer sheet was designed.

The revised questionnaire was tried out on 30 naval personnel at the Washington Navy Yard to establish its readability and determine if the layouts of the question booklet and answer sheet were satisfactory.

Then it was critically examined by 10 Navy Human Relations (HR) Advisors attending a seminar sponsored by PERS-P. While reviewing the questionnaire, some of them commented that it was a "white man's test." By this they meant that the language was white, middle-class English, rather than the vernacular used by many of the youths in the black community. Because of this it was feared that differences in interpretation of some items would arise. For example, one item asked respondents to evaluate the phrases, Black Power, and The U.S. Navy, with respect to being good or bad. It was pointed out that the word "bad" is colloquially used to mean very good by some black youths. Consequently, differences in responses by blacks and whites to these items might reflect semantic as well as attitudinal differences.

On the other hand, most Navy men have sufficient experience with Navy tests and printed materials written in "white man's English" so they would realize that bad is meant to connote something worse than good and respond accordingly. We concurred with this position, but employed certain statistical controls to detect possible semantic differences in analyzing the data.

Appendix A contains a copy of the question booklet and answer sheet that was administered in the field.

FIELD ADMINISTRATION

The sites for field testing the questionnaire were those where HR advisors were stationed. These advisors were familiar with the instrument and its purpose and had credibility within the enlisted community. The latter was an important source of motivation for the respondents to candidly answer the items.

A total of 1501 men completed the questionnaire. The sample can be broken down in two main ways: by race and by officer-enlisted status. Table 1 shows the sources and numbers of the respondents. Examination of the table indicates that the sample is not representative of the Navy as a whole or of the commands that were sampled. Although men of all paygrades, levels of education, length of service, and ratings were included, other characteristics about the groups make them a non-random sample:

1. Only a few commands are represented. This was limited by the location of Human Relations Advisors available to administer the questionnaire. Since we were "testing the test," rather than gathering normative data as the basis for Navywide interpretation, command representation was not viewed as a critical factor. Our intent in using the commands shown in table 1 was not to obtain distributions of attitudes for a representative population, but to gain some notion of the variability of these attitudes for a wide variety of men.

TABLE 1
SOURCES AND NUMBERS OF QUESTIONNAIRE RESPONDENTS*

	Total	White	Black
Enlisted	1108	939	169
Norfolk - NavSta, Ships, Brig	694	601	93
New London	153	129	24
Great Lakes - "A" school awaitees	138	137	1
Air - Pacific	64	39	25
Amphibious - Pacific	59	33	26
Officers	295	291	4
Naval War College - Cmd and Staff class	164	164	0
Naval War College - Naval Warfare class	107	107	0
Other	24	20	4

^{*96} enlisted and 2 officer members of non-black minority groups are not listed here.

- 2. Black enlisted men were deliberately oversampled. Our sample consists of about 15 percent blacks, while the Navy consists of only 6 percent blacks. For comparing the responses of blacks and whites, we needed more blacks than a proportional sample would have afforded. Therefore, we were interested in the absolute numbers of men in a racial group, rather than in the ratio of black to white.
- 3. The officers were attending the Naval War College and are not representative of the officer community as a whole.

OUESTIONNAIRE SCORING AND CONTENT

Preliminary Quantification

We assigned numerical values to the item alternatives to produce metric properties that would allow computation of parametric statistics. High numerical values were assigned to item alternatives indicating unbiased, non-prejudiced, and positive attitudes, while low scores were assigned to biased, prejudiced, and negatively-toned alternatives. Appendix B shows the scale values for the 300 items.

Determining Item Groups

Rather than attempt to deal with 300 items simultaneously, we intuitively sorted the items into logical groupings whenever possible. Table 2 shows the 17 resulting subsets, which are further grouped by similarity of the type of response required to answer the items.

TABLE 2

COMPOSITION OF ORIGINAL AND REVISED (SHORT) QUESTIONNAIRES

Item type Background	Response Fill in	Numbe Original form	r of items Revision Long form 8	Number of composites
Attitudes Objections Personal goals	Rating scale Yes/no Rating scale	111 7 11	43 2 11	3
Prejudice effects	Rating scale	5	5	
Changes Preferences	+, 0, - +, 0, -	3 4	3 4	
Black facts	Correct choice	9	0	
Ranks helpful Free time Unfair treatment	Yes/no Yes/no Yes/no	7 3 13	7 3 13	2
Fights seen	Number	8	8	2
Why NW cluster Recommendations Prejudice bothers	Yes/no Yes/no Yes/no	4 9 1	4 7 1	3
Reactions	+, 0, -	4	4	2
Concepts	+, 0, -	80	72	8
Total items		297	30 +165 in 24 195	composites

Below is a brief description of the items within each logical grouping.

Background. Age, paygrade, race, length of service, and years of education.

Attitudes. This largest group of items contained 111 statements reflecting attitudes toward race, discrimination, and conditions in the Navy. Each item was responded to on a 5-point scale ranging from "strongly agree" to "strongly disagree."

Objections. These 7 items asked if an individual would object to members of various racial groups and nationalities as a member of his family by marriage, a close personal friend, a member of the Navy, an American citizen, or working in the United States (but not a citizen). Each item was scored 0 if any objection was made, or 1 if no objections were made.

Personal Goals. Eleven items relating to inner- and outer-directed goals were rated on a 5-point scale ranging from "of no importance" to "extremely important." Inner-directed goals include ideals where the individual himself is the beneficiary, e.g., enjoying life, becoming a better person, and doing his job well. Outer-directed goals are

represented by altruistic statements exemplifying the "good Samaritan" ethic, e.g., helping others and making a contribution to society.

Prejudice Effects. These 5 items involve perceptions of how prejudicial behavior personally affects the individual. The effect was rated on a 5-point scale, ranging from "almost always" to "almost never."

<u>Changes</u>. Attitude changes observed in the Navy, both personal and of others, are addressed by these three items. Respondents were asked to indicate the direction (positive or negative) and magnitude of any felt or observed changes.

Preferences. Respondents were asked if they preferred a leader or supervisor of a particular racial group, and if they preferred an integrated or segregated neighborhood.

Black Facts. Twelve multiple-choice questions on black history were used to determine if people under- or overestimated the achievements or contribution of members of minority groups to society. For example, when asked to indicate how many Puerto Rican M.D.'s there were in the United States, 2 alternatives were given: one overestimated and one underestimated the correct number. Neither answer was correct. It was hypothesized that those individuals with negative or prejudicial attitudes toward minority groups would underestimate. In retrospect, we realized that such a conclusion could not be made from the item responses. Take, for example, the individual who knows the correct answer to the "Puerto Rican doctor" question but does not have a prejudicial attitude toward this group. He is faced with either knowingly under- or overestimating the value. Under these circumstances, the cognitive and perceptual components of his response are confounded. Without a third response category, a "correct" response, these 2 components of the response cannot be separated. Consequently, we did not use any of the 12 items.

Ranks Helpful. Respondents were asked to indicate which of their peers and superiors had been helpful to them in personal matters during the past month.

Free Time. Men were asked to indicate if they spent free time with whites, blacks, or members of other minority groups during the past month.

<u>Unfair Treatment</u>. These items asked men to indicate if they had been treated fairly during the past month in connection with work assignments, promotion, discipline, liberty, legal matters, and personal affairs, by officers, enlisted men, and civilians.

Fights Seen. Respondents were asked to fill in the number of fights and near-fights (interracial, intraracial, and between military and civilian) they had seen during the past month.

Why Non-Whites Cluster. Respondents were asked to indicate the applicability of reasons which might explain why non-whites cluster together in groups: to be with friends, for protection, because they are excluded from white groups, or to threaten others. It is difficult to imagine what would motivate a black to respond seriously to the last item. In general, these items are "white-oriented," since each response alternative, or reason, begins with "they," i.e., blacks.

Recommendations. Men were asked to evaluate 10 ways of improving conditions in the Navy. The alternatives included "hard line" approaches, such as stronger discipline, as well as methods recommended by human relations advocates, such as "White Navy men should spend more time learning about the problems of Navy men who are from minority groups."

<u>Prejudice Bothers</u>. A single item asked whether or not prejudice bothered the respondent a great deal. This may provide an indication of sympathy felt for people who are the targets of prejudicial attitudes and behavior.

Reactions. Separate sections for whites and for minority group members were written. Whites were asked how they felt about and behaved toward blacks, and blacks about whites.

Concepts. The final series of items is a variant of the semantic differential, a technique originally developed for quantifying the meaning attributed to complex ideas or concepts. Its use has been extended to get at the various attitudes associated with these ideas or concepts. A given concept is presented, and the respondent is asked to select one of each pair of bipolar adjectives he thinks describes it. Some of the bipolar adjectives used were, good or bad, fair or unfair, and strong or weak. We used the same 10 pairs of bipolar adjectives for 8 concepts: Black Power, Navy, Confederate Flag, Two-finger Peace Sign, Afro Haircuts, Singing Dixie, Clenched Fist Salute, and U.S.A.

As shown in table 2, we began with 297 items. As a result of our analyses, we reduced them to 195, of which 165 were grouped into 24 composites.

CREATING VARIABLES

In this section, the steps involved in grouping the 165 items into 24 composites are described. While we initially grouped certain items together because they seemed to be measuring similar kinds of attitudes, we empirically tested these groupings to see if they were internally consistent in the statistical sense.

Factor Analysis

We calculated the item intercorrelations within each set of items, and then analyzed each set of intercorrelations using factor analysis.* This technique identifies items that correlate highly with particular dimensions underlying the correlation matrix (Harman, 1967).

Attitude Items. The largest group of items analyzed as a group were the 111 statements about race, society, and Naval service. Due to data processing limitation, 12 of these items had to be eliminated. This was accomplished by examining the intercorrelation matrix of the 111 items and discarding the 12 items which had the smallest correlation with the remaining 99 items.

Separate correlation matrixes among the 99 variables were obtained for whites, blacks, and members of other racial groups (Others). There are three ways to determine the different dimensions measured by these variables. (1) We can perform three separate factor analyses to determine the structure underlying each of the three sets of data. This approach was rejected on both practical and statistical grounds. We wanted an overall

^{*}The principal components method of factor analysis was used with unities in the diagonal of the correlation matrix and varimax rotation of factors having eigenvalues of at least 1.0.

evaluation of the relationships among the 99 items, and integration of the separate analyses is a difficult and time-consuming subjective process. Further, a necessary condition for the application of factor analysis is that the number of respondents exceeds the number of variables, and this was not the case for "Others." (2) We can average the data across three groups. This could be done by either obtaining a weighted average of the three correlation matrixes or recalculating a single matrix based upon all the respondents. This procedure can lead to obscure results when averaging both positive and negative correlations for the same pair of variables. That is, if variables X and Y were to correlate 0 for whites, -1 for blacks, and +1 for others, the average would be close to 0 because the number of whites is far greater than non-whites. Such results would ignore the differential in the magnitude of the correlations between racial groups for variables X and Y. (3) We used a third approach that statistically partitioned the variance associated with differences in responses from the three racial groups from the combined correlation matrix. Factor analysis of the partitioned matrix then was an analysis of the variation remaining after the influence of differential responses across races was removed. This technique gives equal weight to the responses of the different groups and is independent of the number of observations per group. In essence, it incorporates a statistical control for differences in responses across racial groups. Examination of the combined correlation matrix both before and after partitioning revealed only small changes in the magnitude of the correlation coefficients, and rarely a change in sign.

Other Items. The same partitioning and factor analysis techniques were applied to the correlation matrixes for other groups of items, except that background items were not factored. Similar minimal differences were observed.

Table 3 lists the 24 composites formed from the 16 factor analyses. Two of these, inner- and outer-directed goals, were based on the logical classification of items as either self- or other-oriented because of the nature of these items.

Item Composites

Composite scores were then computed by summing the scores for items that loaded (correlated) at least .40 on a factor. This amounts to unit weighting the items by their standard deviations, which in most cases were very similar within factors. A disadvantage of this procedure for forming a composite is a possible distortion of the orthogonality (statistical independence) of the factors. That is, unit weighted composites developed from seemingly orthogonal factors when intercorrelated may exhibit surprisingly high correlations. However, the unit weights can produce meaningful correlations among the resulting composites which may be easier to interpret than factors which have orthogonality forced upon them. The resulting correlations among our composites did make sense and did not appear to be spurious. Hence, our method of forming composites seemed justified.

Appendix C lists all of the items in each of the 24 composites along with their loadings, communalities, means and standard deviations from the combined group analyses.

 $\begin{tabular}{ll} TABLE 3 \\ LIST OF COMPOSITES FORMED AND NUMBER OF ITEMS IN EACH \\ \end{tabular}$

Composite number		Number of items in composite
1	Racial generalizations	21
2	Navy climate	9
3	Discrimination	13
4	Goals - outer-directed	6
5	Goals - inner-directed	5
6	Ranks helpful - lower	3
7	Ranks helpful - upper	4
8	Unfair treatment - in	6
9	Unfair treatment - by	7
10	Fights - military	6
11	Fights - civilian	2
12	Improving conditions by stronger discipline	2
13	Improving conditions by greater B/W association	on 4
14	Improving conditions by recognizing own prejud	lice 2
15	Being liked	2
16	Feelings	2
17	Black power	9
18	Confederate flag	9
19	U.S. Navy	9
20	Two-finger peace sign	9
21	Singing "Dixie"	9
22	Clenched fist salute	9
23	U.S.A.	9
24	Afro haircuts	9

RESULTS

Major Variables

Composites. We selected 3 major composites as internal measures of attitudes. They were based upon three factors which emerged from the factor analyses of the correlations among the 99 statements about race, society, and the Navy.

The first composite includes 21 items that deal mainly with opinions about the behavior of non-whites, such as "non-whites don't feel they have to follow the rules as much as whites." These items relate to the definition of prejudice as a hostile, stereotyped attitude toward the member of another group that does not correspond with fact (Berelson, 1964). Since they are generalizations about non-whites in society at large as well as in the Navy, we named this composite Racial Generalizations. The name is a convenience and perhaps does not fully convey the fact that the composite primarily measures attitudes toward non-whites. In any case, people who agree with the statements subscribe to negative or stereotyped conceptions of the behavior of non-whites, while those who disagree do not.

The second composite consists of six statements about the accomplishments and promise of the Navy in solving racial problems (such as "The Navy is firmly committed to the principle of equal opportunity") and three statements about the Navy's concern for its members (such as "Most officers try to be helpful with personal matters"). Since this composite measures attitudes about the racial and leadership atmosphere in the Navy, we named it Navy Climate. Those who agree with the statements think highly of the Navy's image, while those who disagree do not.

The third composite contains 13 items, most of which deal with the treatment accorded non-whites in the day-to-day operation of the Navy: for example, "Non-whites get more than their share of dirty details." Following the definition of discrimination as the disadvantageous treatment of members of another group (Berelson, 1964), we named this composite Perceived Discrimination. Those who subscribe to these statements express a belief that non-whites are subject to discrimination and injustice in the Navy and that the Navy should do something about it; those who disagree with the statements deny that such discrimination or injustice exists in the Navy.

Internal Reliability of the Composites. Since composites of similar items are more reliable than individual items, we computed coefficient alpha for each of the three major composites for the total sample to estimate their reliability. This coefficient represents the expected proportion of common variance that the composite has with a perfectly reliable alternate form containing the same number of items (Nunnally, 1967). The coefficient for Racial Generalization was 0.94, for the Navy Climate 0.88, and for Perceived Discrimination 0.90. All of these are highly acceptable from the standpoint of measurement reliability.

Attitude Change Items. The single item used as a major internal measure of racial attitudes was chosen on logical grounds and because of the distribution of responses observed -- particularly for white enlisted men. The item used was, "Since joining the

Navy my attitude towards other races and groups has not changed, become more favorable, or become less favorable." Table 4 shows the distributions for officers and enlisted men.

TABLE 4

PERCENTAGE DISTRIBUTION FOR ATTITUDE CHANGE

Since joining the Navy my attitude towards other races and groups has:	Officer	Enlisted blacks	Enlisted whites
Become more favorable	41	40	26
Not changed	50	40	50
Become less favorable	9	20	24
Total respondents	288	161	898
Mean	2.32	2.21	2.01
S.D.	0.64	0.75	0.70

About half of the respondents in all three groups reported no change. The percentage reporting a more favorable change was substantially greater than the percentage reporting a less favorable one in all groups except the enlisted whites. The positive and negative changes of enlisted whites cancelled out one another. In other words, in this sample the reported attitudes of the officers and enlisted blacks toward other races and groups have generally improved since they joined the Navy, but those of enlisted whites have not.

Relationships Among the Major Variables. Since composites were formed only from those items that correlated highly with each of the three factors and a unit weighting procedure was used to form them, they no longer are necessarily independent or uncorrelated. Therefore, we computed the intercorrelations among the composites to determine the degree of association. Further, we wanted to know the correlation of the Attitude Change item with the composite scores. For 912 white enlisted men, the following pattern of correlations was observed:

	Navy	Perceived	Attitude
Variable	climate	discrimination	<u>change</u>
Racial generalizations	.18	.34	.40
Navy climate		06	.23
Perceived discrimination			.22

Among the three composites, there is a moderate relationship between Racial Generalizations and Perceived Discrimination: those who do not generalize perceive that non-whites are subject to discrimination or injustice (and vice versa).

Attitude change correlates moderately with all three composites, but mainly with Racial Generalizations: those who do not generalize report improved attitudes toward other races and groups since joining the Navy (and vice versa).

The positive correlation of Navy Climate and Attitude Change indicates that those who perceive the Navy as being "firmly committed to the principle of equal opportunity" report a positive change of attitude towards members of other racial groups.

There is a positive correlation between Perceived Discrimination and the Attitude Change item. This indicates that whites who perceive discrimination and injustice toward other racial groups also develop a more favorable attitude toward members of those groups.

The relationships that the three composites exhibit with one another are explicable, but they are not so high as to permit any one to substitute for another.

Distributions of Composites. Figures 1-3 show the percentage distributions of Racial Generalizations, Navy Climate, and Perceived Discrimination scores for the officers and two groups of enlisted men. They are based on tables 5-7.

On Racial Generalizations, black enlisted men score highest, meaning that they are the least likely to use racial generalizations (about non-whites) - which is rather obvious. White enlisted men, on the other hand, score lowest, which means that they subscribe more to racial generalizations and stereotyped ideas. Officers' scores fall in between those of the black and white enlisted men.

On Navy Climate, both white and black enlisted men have about the same distribution, ranging over the entire scale. The officers, however, range from a moderately good to an outstanding perception of Navy Climate, and their lowest scores exceed the averages of the black and white enlisted men.

On Perceived Discrimination, the blacks clearly have the highest scores, that is, they perceive the most discrimination. The white enlisted men and officers have low scores with nearly identical distributions. In fact, most of the scores of the white enlisted men and officers are below the average score of the black enlisted men. Responses of these whites deny that there is discrimination against non-whites in the Navy.

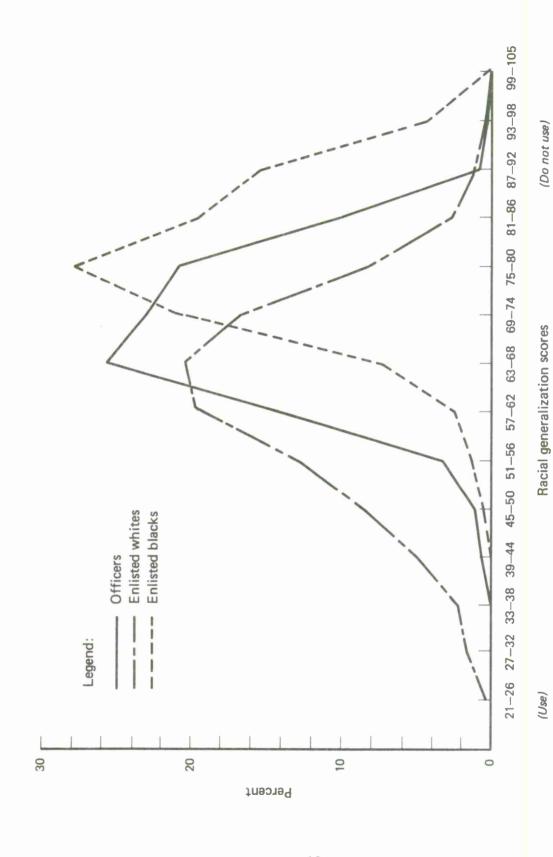


FIG. 1: PERCENTAGE DISTRIBUTIONS OF RACIAL GENERALIZATION SCORES

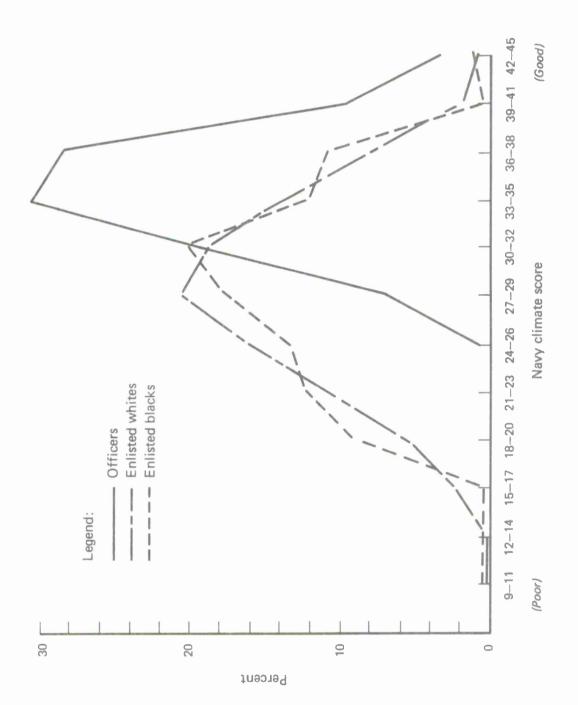


FIG. 2: PERCENTAGE DISTRIBUTIONS OF NAVY CLIMATE SCORES

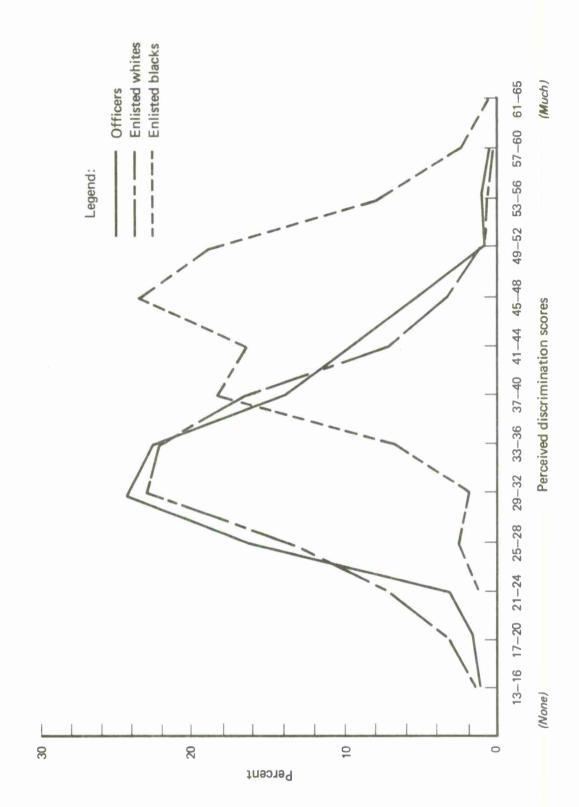


FIG. 3: PERCENTAGE DISTRIBUTIONS OF PERCEIVED DISCRIMINATION SCORES

TABLE 5

PERCENTAGE DISTRIBUTIONS OF RACIAL GENERALIZATION SCORES

,	Score interval	Officers Percent Cum.	Officers Percent Cum. percent	Enlis	Enlisted blacks Percent Cum, percent	Enlist	Enlisted whites cent Cum. percent
(Nse)	21-26	1	1	1		0.2	0.2
	27 - 32	ı	1	ı	ı	1.8	2.0
	33-38	i	1	ı	ı	2.3	4.3
	39-44	0.7	0.7	ı	ı	5.0	9.3
	45-50	1.1	1.8	9.0	9.0	8.7	18.0
	51-56	3.3	5.1	1.2	1.8	13,3	31.3
	57-62	14.2	19.3	2.5	4.3	19.7	51.0
	63-68	25.5	44.8	7.4	11.7	20.4	71.4
	69 - 74	23.0	67.8	21.0	32.7	16.7	88.1
	75-80	20.8	88.6	27.8	60.5	8.0	96.1
	81-86	10.2	98.8	19.8	80.3	2.7	98.8
	87-92	0.7	99.5	15.4	95.7	0.9	7.66
(Do not	93-98	1	99.5	3,1	98.8	0.3	100.0
(asn	99-105	0.4	6.66	1.2	100.0	ı	100.0
Total re	Total respondents	274		1	162	∞	668
Mean score	ore	70	70.0		78.2		61.2
Standaro	Standard deviation	8	8 8		9.1		12.0

TABLE 6

PERCENTAGE DISTRIBUTIONS OF NAVY CLIMATE SCORES

,	Score	Percent C	Officers Percent Cum. percent	Enlist	Enlisted blacks Percent Cum. percent	Enliste Percent C	Enlisted whites Percent Cum. percent
(Poor)	9-11	ı	ı	9.0	9.0	0.2	0.2
,	12-14	ı	ı	9.0	1.2	0.2	0.4
	15-17	ı	ı	9.0	1.8	2.6	3.0
	18-20	ı	ı	9.2	11.0	5.6	8.6
	21-23	ı	ı	12.3	23.3	11.0	19.6
	24-26	0.7	0.7	13.5	36.8	16,1	35.7
	27 -29	7.0	7.7	17.8	54.6	20.7	56.4
	30-32	19.9	27.6	20.2	74.8	18.8	75.2
	33-35	30.7	58.3	12.3	87.1	13.7	88.9
	36-38	28.6	86.9	11.0	98.1	8.1	0.76
	39-41	8.6	7.96	9.0	98.7	2.0	0.66
(Good)	42-45	3,3	100.0	1.3	100.0	1.0	100.0
Total re	Total respondents	287	37	16	163	∞	897
Mean score	ore	67)	34.7	.,	28.5		28.5
Standard	Standard deviation		3.6		0.9		5.7

TABLE 7

PERCENTAGE DISTRIBUTIONS OF PERCEIVED DISCRIMINATION SCORES

Enlisted whites Percent Cum. percent	1.4 1.4 3.1 4.5 7.5 12.0 13.5 22.5 22.9 48.4 22.0 70.4 16.5 86.9 8.2 95.1 3.3 98.4 0.9 99.3 0.6 99.9		897	33.7	7.1
Enlisted blacks Percent Cum. percent	1.3 2.5 3.8 1.9 6.9 12.6 18.2 30.8 16.4 47.2 23.3 70.5 18.9 89.4 7.5 96.9	П	159	45.1	7.5
Officers Percent Cum. percent	1.3 1.7 3.5 3.0 3.5 6.5 15.8 24.2 46.5 22.3 22.3 46.5 22.3 69.0 14.0 9.5 9.5 9.5 9.5 9.7 1.1 99.6		285	34.8	7.3
Score	(None) 13-16 17-20 21-24 25-28 29-32 33-36 37-40 41-44 45-48 49-52 53-56 57-60	(Much) 61-65	Total respondents	Mean score	Standard deviation

Correlates of Major Variables

Next, we looked at the relationships of other items in the questionnaire with Racial Generalizations, Navy Climate, Perceived Discrimination, and the Attitude Change item. The multiple correlations between these other items and our major variables are shown in the top part of table 8. All of them are significant and most are sizable. Appendix D shows specifically what other items jointly produced these multiple correlations with each of the major variables. By and large, the relationships were logical, as illustrated by the items that had the highest correlations with each major variable shown in the bottom part of table 8.

TABLE 8

CORRELATIONS BETWEEN OTHER QUESTIONNAIRE ITEMS AND MAJOR VARIABLES FOR ENLISTED AND OFFICER GROUPS

Group		Racial generalizations	Navy <u>climate</u> Multiple correl	Perceived discrimination ation	Attitude change	
Enlisted Enlisted Officers	white black	.75 .55 .70	.70 .70 .50	.60 .55 .70	.50 .50 .40	
		Highest simple correlation				
Enlisted Enlisted Officers	white black	.50 Impr-Assoc. .35 Call-Black .45 Afros	.55 Navy .55 Navy .30 Goals - outer	.40 Impr-Assoc40 Conf. flag .45 Impr-Assoc.	.40 RacGen .45 Relon .25 Discrim.	

A group of items that advocate improving racial relations by greater association between whites and non-whites correlates .50 with Racial Generalizations for white enlisted men: those who believe that more association will improve race relations do not use racial generalizations.

The semantic differential concept of U.S. Navy correlates positively with Navy Climate for both black and white enlisted men: those who have a favorable opinion of the Navy also have a good perception of the Navy Climate.

The group of items stating that racial problems could be reduced by greater association between the races correlates .40 with Perceived Discrimination for white enlisted men. The semantic differential concept of Confederate Flag correlates -.40 with Perceived Discrimination for black enlisted men: those who dislike the Confederate flag believe that there is discrimination in the Navy.

Racial Generalizations correlates .40 with the Attitude Change item for white enlisted men: those who do not use racial generalization report a positive attitude change towards other races and groups. "I think racial relations on the base are improving" correlates .45 with positive Attitude Change for black enlisted men.

The point of table 8 is that there are substantial relationships between other items and groups of items in the questionnaire and the three major composites and Attitude Change item that we chose as internal measures of racial attitudes. These internal measures are not only homogeneous and consistent, but they relate highly and appropriately to other kinds of attitude items. In short, the questionnaire has content validity.

Correlates of Age

Attitudes may in part be a function of age, so we looked at the correlations between age and the other items and composites in the questionnaire. The correlates are listed in table 9 for white and black enlisted men. The median age of the whites was 21, one year less than that of the blacks. However, three-fourths of the whites were younger than 24, while three-fourths of the blacks were younger than 34. Consequently, older or more senior men are represented in greater proportion among the blacks.

TABLE 9

SIMPLE CORRELATES OF AGE AMONG QUESTIONNAIRE COMPOSITES
AND ITEMS FOR BLACK AND WHITE ENLISTED MEN

White enlisted men		Black enlisted men			
Navy climate	.35	Navy climate	.52		
Peace sign	35	Call blacks blacks	44		
Upper ranks helpful	.28	Call blacks negroes	.44		
Improve conditions in Navy		Goals - outer	.43		
by stronger discipline	.28	U.S. Navy	.41		
Goals - outer	.23	Clenched fist salute	41		
U.S. Navy	.22	Confederate Flag	38		
Fights seen - military	21	Like whites as well as blacks	.37		
		Black power	37		
		Years of education	35		

In general, older men or careerists had higher scores on variables which represent satisfaction with the Navy status quo and dissatisfaction with symbols of black militancy — particularly in the case of the older black enlisted men. Opposite reactions are characteristic of younger respondents.

Also important is the fact that age did not relate to Racial Generalizations and Perceived Discrimination, signifying that these kinds of attitudes are independent of age.

Black-White Comparisons

A number of other items which produced important descriptive information on black and white enlisted men are shown in table 10. Most of the results speak for themselves. The more dramatic differences are in the percentages of blacks: from urban hometowns (54 percent vs. 27 percent of whites); from the South (40 percent vs. 22 percent of whites); using the term "blacks" (63 percent vs. 27 percent of whites); not objecting to a family member from the other racial group (60 percent vs. 28 percent of whites); usually or

always being affected by racial tensions (35 percent vs. 15 percent of whites); not believing that race relations outside of the Navy are worsening (18 percent vs. 40 percent of whites); not believing that non-whites cluster to threaten whites (79 percent vs. 32 percent of whites); and preferring an integrated neighborhood (47 percent vs. 15 percent of whites).

SUMMARY

We found three consistent kinds of attitudes about Racial Generalizations, the Navy Climate, and Perceived Discrimination in the Navy that were reliably measured by general statements concerning race, society, and the Naval service in a questionnaire administered to groups of enlisted men and officers. These three attitude composites correlated with other items in the questionnaire that also logically related to them, which indicates that we have coherent, consistent measures of attitudes.

The enlisted men and officers, although not representative of the Navy in general, differed on these three composites. White enlisted men used the most racial generalizations, black enlisted men least, with officers in between. Both white and black enlisted men saw the Navy Climate less favorably than did the officers. Both white enlisted men and officers felt there was little discrimination in the Navy, whereas black enlisted men felt there was more.

The results for an Attitude Change item showed that the net effect of changes in attitude towards other races and groups since joining the Navy was encouragingly positive for the black enlisted men and officers, but, on balance, zero for the white enlisted men.

The revised questionnaire (appendix E) can be used cautiously to evaluate racial attitudes in different commands and assess the effects of human relations training. * Meanwhile, further normative data should be gathered and validation attempts made before placing full confidence in it.

Once prejudiced attitudes have been identified, a policy with teeth in it perhaps will help to reduce discriminatory behavior. But to change attitudes and behavior will require human relations training. Merely providing more information about another group has little effect on changing attitudes or behavior (Berelson and Steiner, 1964), and personal contact between groups may decrease, increase, or have no effect on intergroup tension (Masuoka, 1961). Perhaps the most effective agent for and reinforcement of change is belonging to a group of people who feel and act in the desired way, and the value of human relations training is supported by evidence that prejudice and discrimination decrease as sense of group position recedes, or as one group is assimilated into another (Lippitt and Radke, 1946).

The Navy has had success with a human relations training program. Negative attitudes of Navymen toward South Vietnamese were changed, and better working and social relations (Stoloff, 1971) were subsequently observed. To produce such changes in attitudes and behavior, training programs must (Becker, et al, 1971):

^{*}A guide, (INS)930-72 of 24 Oct 1972, has been prepared for this purpose.

- 1. Have the wholehearted support of the organization involved and its support and tolerance of members who do change.
 - 2. Be both horizontal and vertical in drawing subordinates and supervisors together.
- 3. Either screen out candidates who might be harmed by the experience or provide for careful monitoring to avoid harm.
 - 4. Carefully explain the goals and limits of the program to the participants.
 - 5. Have mature, responsible, trained leaders.

EPILOGUE

Subsequent use of the revised quentionnaire on 1500 white and 1000 black Army enlisted men who were carefully sampled world-wide produced remarkably the same three attitude factors and percentage distributions found in our Navy sample (Stoloff, 1972).

TABLE 10

COMPARISONS OF BLACK AND WHITE ENLISTED MEN ON SELECTED ITEMS

		White percent	Black percent
Hometown:	Urban Suburban Rural	27 41 33	54 20 24
Where from:	East Midwest South Southwest West	36 27 22 5 9	27 18 40 7 5
Spent free time is	n past month with: Blacks Other minorities Whites	56 46 94	87 63 75
Personally bother Call blacks:	red by prejudice: Black Negroes Colored Other	55 27 14 22 19	61 63 10 7 4
No objection to fa	amily members of	28	60
Affected by racia	l tensions: Rarely or never Usually or always	53 15	28 35
Personally affect base/ship durin	ed by prejudice on g past month: Rarely or never Usually or always	70 9	59 17
Personally affected base/ship during	ed by prejudice off g past month: Rarely or never Usually or always	68 11	55 21
Race relations or	n base/ship: Getting better Getting worse	24 21	37 14
Race relations of	f base/ship: Getting better Getting worse	16 40	24 18

TABLE 10 (Cont'd)

	White percent	Black percent
No preference for liking whites or blacks in section	71	63
Why non-whites cluster in groups: To be with friends To protect themselves To threaten whites Because excluded	85 44 32 37	89 24 7 32
Civilian neighborhood preference: Not integrated Integrated No preference	36 15 47	8 47 45

REFERENCES

- (1) Becker, B., Flaherty, E. M., and Piper, W. E., "Sensitivity Training for Enlisted Personnel," in Proceedings, Psychology in the Air Force, Second Annual Symposium, USAF Academy, Department of Life and Behavioral Sciences, April 1971
- (2) Berleson, B., and Steiner, G., Human Behavior, An Inventory of Scientific Findings, New York: Harcourt, Brace, & World, 1964
- (3) Defense Documentation Center. Report Bibliography on Race Relations in the U.S. Armed Forces, 24 Jan 1972 (Unclassified)
- (4) Harman, H. H., Modern Factor Analysis, Chicago: University of Chicago Press, 1967
- (5) Nunnally, J., Psychometric Theory, New York: McGraw-Hill, 1967
- (6) Lippitt, R., and Radke, Marian, "New Trends in the Investigation of Prejudice," Annals of the American Academy of Potitical and Social Science, volume 244, pp. 167-176, Mar 1946
- (7) Masuoka, J., and Valien, P. (Eds.), Race Relations-Problems and Theory, Chapel Hill: University of North Carolina Press, 1961
- (8) Stoloff, P.H., "The Navy Personal Response Program," Center for Naval Analyses, Professional Paper 75, Jul 1971
- (9) Stoloff, P.H., "Use of the Navy Human Relations Questionnaire with U.S. Army Personnel," Center for Naval Analyses, (CNA) 1879-72, Dec 1972

APPENDIX A

NAVY QUESTIONNAIRE

NAVY QUESTIONNAIRE

The questionnaire you are about to take is being administered as a part of the Navy Human Relations Project in race relations, and has been developed by the Center for Naval Analyses. It is an effort to get insights into the views of various people in the Navy about race relations.

Please give your frank and honest answers to the questions. Work at any speed which is comfortable for you. If you have any questions, do not hesitate to ask the proctor for assistance.

Do not put your name on the questionnaire or answer sheet. The answers you give will be completely confidential. They will not be seen by Navymen in any fashion which would identify you with your answer.

GENERAL INSTRUCTIONS

- 1. Use the answer sheet enclosed with this questionnaire to record all of your answers.
- 2. Read each question carefully, and then choose your answer.
- 3. Circle the letter that matches your answer on the answer sheet.

Example: Question 1: What service are you in?

- A Navy
- B Army
- C Air Force
- D Marine Corps

Answer 1: ABCD

HOW DO YOU FEEL ABOUT EACH OF THE FOLLOWING STATEMENTS? CIRCLE THE LETTER ON YOUR ANSWER SHEET ACCORDING TO THE SCALE BELOW:

A = DISAGREE STRONGLY

B = DISAGREE

C = NEITHER AGREE NOR DISAGREE

D = AGREE

E = AGREE STRONGLY

 $F = DON^{\dagger}T KNOW$

- 1. In the United States, any man can get ahead if he really wants to.
- If a man doesn't like the way things are done in the Navy he should leave.
- 3. The Navy is firmly committed to the principle of equal opportunity.
- 4. Non-whites should treat whites better than they do.
- 5. Whites have good reason to be angry.
- 6. Skin color is not important in the Navy.
- 7. The problem of racial prejudice has been greatly exaggerated by a very few vocal militants.
- 8. Minorities should not try to use the military to solve any of their problems.
- 9. Every instance of possible discrimination should be challenged.
- 10. There should be no dissent in the Navy.
- 11. There is a good chance that the Navy can reduce racial problems.
- 12. The Navy should make a greater effort to assist non-whites to qualify for enlistment and technical ratings.
- 13. Racism is common among Navy men.
- 14. The black recruit makes a better Navy man.
- 15. White Navy men are punished less severely than non-whites for the same offenses.
- 16. All whites have at least some prejudice toward non-whites.

- 17. Full integration would be a good thing.
- Unimportant racial problems should be ignored. Only major problems should be attacked.
- 19. There is no racial discrimination in military justice in the Navy.
- 20. Trying to achieve integration is more trouble than it's worth.
- 21. Every man should have a voice in his own government no matter how poorly educated he is.
- 22. Too much attention is being given to the black minority and not enough to other minorities.
- 23. Closer association between the races will improve relations.
- 24. Non-whites have good reason to distrust whites.
- 25. If I don't actively try to solve the racial problem, then I'm making it worse.
- 26. Non-whites get more than their share of dirty details.
- 27. White S.P.'s treat everyone alike.
- 28. The U.S. is obligated to help minorities because of past discrimination.
- 29. Non-whites usually use a foreign language or special words in order to hide things from others.
- 30. The Navy really doesn't care what people like me think.
- An unfairly large number of non-whites are assigned to non-technical jobs.
- 32. Non-whites tend to segregate themselves.
- 33. The military is spending too much time and effort on the minority problem.
- 34. Many non-whites have become too sensitive.
- 35. Success and prestige are less important to non-whites than they are to whites.
- 36. Most non-whites would like to be included in white groups.
- 37. Most non-whites still need close supervision on technical jobs.
- 38. Whites do not show proper respect for non-whites with higher rank.

CIPCLE THE LETTER ON YOUR ANSWER SHEET ACCORDING TO THE SCALE BELOW:

A = DISAGREE STRONGLY

D = AGREE

B = DISAGREE

E = AGREE STRONGLY

C = NEITHER AGREE NOR DISAGREE

F = DON'T KNOW

- 39. Most non-whites tend to be loud and boisterous.
- 40. The Navy was a more efficient outfit 5 years ago than it is now.
- 41. Whites and non-whites really think and feel the same way.
- 42. The best way to solve racial problems in the Navy is to have stronger discipline.
- 43. One way of reducing racial tension would be to assign individuals to sections made up of their own race.
- 44. Non-whites have good reason to be angry.
- 45. Most non-whites would like to date white women.
- 46. There should be more open discussion between the races about racial problems.
- 47. Whites do not usually have to be as good as non-whites to be promoted in the Navy.
- 48. Most Petty Officers are fair in discipline and punishment.
- 49. Joining the Navy was one of the better decisions I have made.
- 50. Many non-whites have begun to act as if they are superior to whites.
- 51. Most Petty Officers try to be helpful with personal matters.
- 52. Whites have good reason to distrust non-whites.
- 53. Non-whites frequently cry "prejudice" rather than accept blame for personal faults.
- 54. Whites should treat non-whites better than they do.
- 55. There is less racial prejudice in the Navy than in civilian life.
- 56. All non-whites feel some prejudice towards whites.
- 57. Allowing black Navy men to wear Afro haircuts amounts to preferential treatment.
- 58. Black S.P.'s treat everyone alike.
- 59. In qualifying minorities for enlistment and technical ratings, their educational disadvantages should be allowed for.
- 60. Most whites don't care about the problems of minorities.

- 61. Non-whites don't take advantage of the educational opportunities that are available to them.
- 62. Non-whites should stay with their own groups.
- 63. Most whites deliberately discriminate against minorities.
- 64. It's not good for the Navy for minority people to dress or behave differently from the majority of Navy men.
- 65. It's no use trying to get anywhere in the Navy. Whether or not you are promoted is strictly out of your hands.
- 66. Most non-whites would be free of racism if whites were free of racism.
- 67. Non-whites don't feel they have to follow the rules as much as whites.
- 68. Non-whites do not show proper respect for whites with higher rank.
- 69. Most whites would like to date non-white women.
- 70. Tension between blacks and whites is a serious problem in the Navy.
- 71. Whites should try to understand what it feels like to be a member of a non-white group.
- 72. Most Navy officers try to be helpful with personal matters.
- 73. Integration should be left strictly to personal preference.
- 74. Non-whites should be more united in order to improve things.
- 75. The tradition of being an elite group has been undercut because the Navy has taken in too many of the wrong people.
- 76. Non-whites are trying to get ahead too fast.
- 77. It's up to non-whites to take the lead in associating with whites.
- 78. It is to every white's advantage to keep non-whites down.
- 79. It would be better for minorities to emphasize what all Americans have in common rather than to emphasize their differences.
- 80. The Navy provides a good career opportunity for members of minority groups.
- 81. Because of all the tensions that have occurred, it looks like the armed forces should have been desegregated more slowly.

CIRCLE THE LETTER ON YOUR ANSWER SHEET ACCORDING TO THE SCALE BELOW:

A = DISAGREE STRONGLY

D = AGREE

B = DISAGREE

E = AGREE STRONGLY

C = NEITHER AGREE NOR DISAGREE

F = DON'T KNOW

- 82. The Navy should recognize that it is not always fair to apply test standards to minority groups that have been developed for whites.
- 83. No man should push himself where he is not wanted.
- 84. There should be many officers who come from minority groups in the Navy.
- 85. Non-whites are taking advantage of current social and political unrest to gain advantages for themselves.
- 86. In my opinion most whites would prefer to see non-whites better off then they are.
- 87. Too many people in the Navy are out for themselves.
- 88. In spite of what they show on the surface, most whites are pretty much the same in their attitudes towards non-whites.
- 89. Commanding officers should be more responsive to the needs of minority group members.
- 90. I think the Navy is the best military service in the world.
- 91. Reverse discrimination against whites is just as bad as discrimination against non-whites.
- 92. Most non-whites are just as dependable as whites.
- 93. The problems for blacks are worse in the Navy than other minority groups, such as Puerto Ricans and American Indians.
- 94. If the race problem can be solved anywhere, it can be solved in the Navy.
- 95. Non-whites are less eager than whites to be promoted to positions of responsibility.
- 96. If things continue the way they are going the blacks will get more than their fair share.
- 97. It's up to whites to take the lead in associating with non-whites.
- 98. Whites have more reason to fear blacks than blacks have to fear whites.
- 99. Members of minority groups have a harder time in the Navy than the others.
- 100. Whites dislike blacks more than blacks dislike whites.
- 101. Integration in the Navy doesn't seem to help in reducing racial tensions.

- 102. Black officers have more trouble commanding white enlisted men than white officers do.
- 103. In the long run, dating between blacks and whites does more harm than good.
- 104. Private clubs should have a right to exclude whoever they want to.
- 105. Calling attention to racial problems only makes things worse.
- 106. White officers have more trouble commanding black enlisted men than black officers do.
- 137. Most commanding officers prefer not to deal openly with racial problems.
- 108. Recruit training helps to break down prejudice for most of the men who are prejudiced when they join.
- 109. The Navy is doing a very good job in trying to reduce problems and tensions between groups.
- 111. People can be trained to be less prejudiced.

WOULD YOU HAVE ANY OBJECTION IF THE PEOPLE LISTED BELOW HELD ANY OF THE POSITIONS DESCRIBED IN THE COLUMNS? CIRCLE THE ONE LETTER ON YOUR ANSWER SHEET CORRESPONDING TO THE POSITION YOU WOULD MOST OBJECT TO.

		Position											
		A	В	С	D	Ē	F						
		A member	A close	A member	An	Working in	No						
		of my	personal	of the	American	the U.S.,	objections						
		family by	friend	Navy	citizen	but not a							
		marriage		,		citizen							
112.	A white American												
113.	A black American												
114.	A Puerto Rican												
115.	A Mexican- American	CI	RCLE ANSWE	RS ON YOUR	ANSWER SH	EET							
116.	An American Indian												
117.	A Japanese												
118.	A Canadian												

HOW IMPORTANT TO YOU IS EACH OF THE FOLLOWING GOALS? CIRCLE THE LETTER ON YOUR ANSWER SHEET ACCORDING TO THE SCALE BELOW:

A = OF NO IMPORTANCE

B = NOT VERY IMPORTANT

C = FAIRLY IMPORTANT

D = IMPORTANT

E = EXTREMELY IMPORTANT

- 119. Getting along well with everyone
- 120. Being treated fairly
- 121. Treating others fairly and decently
- 122. Being a good example for others
- 123. Making a contribution to my country
- 124. Promoting equality and democracy
- 125. Becoming a better person
- 126. Helping others
- 127. Living up to my beliefs
- 128. Doing my job well
- 129. Enjoying life

FOR ITEMS 130 THROUGH 141, CIRCLE THE LETTER ON YOUR ANSWER SHEET THAT CORRESPONDS TO YOUR ANSWER.

- 130. Do black Navy men treat you fairly?
 - A Almost always
 - B Usually
 - C Sometimes
 - D Rarely
 - E Almost never
- 131. You can be affected by racial tensions in two ways: either directly, when someone of another group treats you unfairly; or indirectly, when you have a problem because there is racial tension in general. Does general racial tension in the Navy cause problems for you personally?
 - A Almost always
 - B Usually
 - C Sometimes
 - D Rarely
 - E Almost never

- 132. How often have you personally been affected by prejudice in the past month on the base or ship?
 - A Almost always
 - B Often
 - C Sometimes
 - D Rarely
 - E Almost never
- 133. How often have you personally been affected by prejudice in the past month off the base or ship?
 - A Almost always
 - B often
 - C Sometimes D Rarely

 - E Almost never
- 134. When I talk about blacks, I usually use the word:
 - A Blacks
 - B Negroes
 - C Colored
 - D Some other word
 - E No preference
- 135. Since joining the Navy, my attitude toward other races and groups has:
 - A not changed
 - B become more favorable
 - C become less favorable
- 136. Race relations on the base or ship are:
 - A getting better
 - B getting worse
 - C not changing much
- 137. Race relations off the base or ship are:
 - A getting better
 - B getting worse
 - C not changing much
- 138. If you were in combat, who would you rather have fighting along side you?
 - A A white
 - B A black
 - C No preference
- 139. I like the whites in my section more than I like the blacks.
 - A Yes

 - C No difference
- 140. Who would you rather have as a commanding officer?
 - A A white

 - B A black C No preference
- 141. If I were a civilian, I would prefer to live in a neighborhood that is:
 - A not integrated
 - B integrated
 - C no preference

CIRCLE THE LETTER A OR B ON YOUR ANSWER SHEET ACCORDING TO WHICH ANSWER YOU THINK IS MOST ACCURATE, EVEN THOUGH YOU MAY NOT BE SURE OF THE CORRECT ANSWER.

- 142. How many blacks have been awarded the Congressional Medal of Honor?

 - B 22
- 143. How many black millionaires are there in the U.S.?
 - A 10
 - B 30
- 144. In what year was the Nobel Prize first awarded to a black?
 - A 1930
 - B 1950
- 145. In what year was the heavyweight championship won by a black for the first time?
 - A 1900 B 1940
- 146. The National Association for the Advancement of Colored People (NAACP) was founded in what year?
 - A 1910
 - B 1930
- 147. What is the approximate number of non-whites who own their own homes?
 - A 410,000
 - B 215,000
- 148. How many non-white college professors are there in the U.S.?
 - 200
 - B 2,000
- 149. How many Puerto Rican medical doctors are there in the U.S.?

 - B 2,000
- 150. How many blacks have college degrees?
 - A 100,000
 - B 600,000

WHICH OF THE FOLLOWING RANKS HAS BEEN HELPFUL TO YOU IN PERSONAL MATTERS, AND WHICH HAVE NOT BEEN HELPFUL? CIRCLE YOUR ANSWER SHEET "A" IF THEY HAVE BEEN HELPFUL, OR "B" IF THEY HAVE NOT BEEN HELPFUL.

- 151. Non-rated men
- 152. 3rd Class Petty Officer
- 153. 2nd Class Petty Officer
- 154. 1st Class and Chief Petty Officers
- 155. Limited Duty and Warrant Officers
- 156. Ensign, Lieutenant (J.G.), and Lieutenant
- 157. Lt. Commander and above

FOR ITEMS 158 THROUGH 166, CIRCLE YOUR ANSWER SHEET "A" IF YES, OR "B" IF NO.

- 158. Spent free time with blacks
- 159. Spent free time with members of other minority groups, such as Puerto Ricans, Mexican Americans, etc.
- 160. Spent free time with whites.

I HAVE BEEN TREATED UNFAIRLY IN THE PAST MONTH IN CONNECTION WITH:

- 161. work assignments
- 162. promotion
- 163. discipline
- 164. liberty
- 165. legal matters
- 166. personal affairs

FOR ITEMS 167 THROUGH 173, CIRCLE YOUR ANSWER SHEET "A" IF YES, OR "B" IF NO.

I have been treated unfairly in the past month by:

- 167. Officers in my section
- 168. Petty Officers in my section
- 169. Non-rated men in my section
- 170. Officers outside my section
- 171. Petty Officers outside my section
- 172. Non-rated men outside my section
- 173. Civilians

FOR ITEMS 174 THROUGH 181, WRITE A NUMBER ON YOUR ANSWER SHEET FOR EACH PART OF THE QUESTION. IF YOUR ANSWER IS NONE, WRITE "O".

How many fights have you seen in the last month involving Navy men?

- 174. Between two white Navy men
- 175. Between a white and a non-white Navy man
- 176. Between two non-white Navy men

How many near fights (heated arguments) have you seen in the last month?

- 177. Between two white Navy men
- 178. Between a white and a non-white Navy man
- 179. Between two non-white Navy men

How many fights or arguments have you seen in the last month involving a Navy man and a civilian?

- 180. Between a white Navy man and a black civilian
- 181. Between a non-white Navy man and a white civilian

FOR ITEMS 182 THROUGH 195, CIRCLE ON YOUR ANSWER SHEET "A" IF YOU THINK THE ANSWER APPLIES, OR "B" IF IT DOES NOT APPLY.

- I think non-whites cluster together in groups because:
- 182. they want to be with their friends
- 183. they seek protection
- 184. they mean to threaten others, such as whites
- 185. they are excluded from white groups

Which of the following would you recommend as ways of improving conditions in the Navy?

- 186. Better ways of learning about Navy men's grievances
- 187. Stronger discipline
- 188. White Navy men should spend more time learning about the problems of Navy men who are from minority groups
- 189. More association between black and white Navy men
- 190. Blacks should be careful not to cry prejudice so often
- 191. There should be more black officers
- 192. The Navy should pay less attention to racial problems
- 193. More whites should recognize their own prejudice
- 194. More blacks should recognize their own prejudice
- 195. Reduce racial tensions by having each man just do his job well.

FOR ITEM 196, CIRCLE YOUR ANSWER SHEET "A" IF IT IS TRUE, OR "B" IF IT IS FALSE.

196. Prejudice bothers me a great deal.

IF YOU ARE FROM A MINORITY GROUP, PLEASE ANSWER THE FOLLOWING QUESTIONS. IF YOU ARE WHITE, PLEASE SKIP TO THE NEXT PAGE.

- 197. Because I'm from a minority group, most of the whites in my section like me less than they like the other whites.
 - A Yes
 - B No
 - C Don't know
 - D Not applicable
- 198. Because I'm from a non-black minority group, the blacks in my section like me less than they like the other whites.
 - A Yes
 - B No
 - C Don't know
 - D Not applicable
- 199. How do you feel about whites?

 - A I like them
 B I don't like them
 C It depends upon the individual
- 200. How do you feel about members of other minority groups?
 - A I like them
 - B I don't like them
 - C It depends upon the individual

IF YOU ARE WHITE, PLEASE ANSWER THE FOLLOWING QUESTIONS. IF YOU ARE FROM A MINORITY GROUP, PLEASE SKIP TO THE NEXT PAGE.

- 197. Because I'm white, most of the blacks in my section like me less than they like the other blacks.
 - A Yes
 - No
 - C Don't know
 - D Not applicable
- 198. Because I'm white, men from other minority groups in my section like me less than they like men from their own group.

 - A Yes
 B No
 C Don't know
 D Not applicable
- 199. How do you feel about blacks?
 - A I like them
 - B I don't like them
 - C It depends upon the individual
- 200. How do you feel about members of other minority groups, such as Puerto Ricans, Mexican-Americans, etc.?
 - A I like them
 - B I don't like them
 - C It depends upon the individual

In items 201 through 208 (printed on the back of your answer sheet), we would like to find out what certain things mean to you. For example, in item 201 you are asked about black power. There are 10 sets of words that look like this:

BLACK POWER

good	АВС	bad
fair	ABC	unfair
strong	ABC	weak
happy	ABC	sad
sweet	ABC	bitter
large	ABC	small
kind	ABC	cruel
beautiful	ABC	ugly
light	ABC	heavy
nice	авс	awful

If you think that Black Power is good, circle the "A" on your answer sheet right next to "good." If you think that Black Power is bad, circle the "C" right next to "bad." If you can't decide if Black Power is good or bad, circle the "B".

Than go to the next line (fair - unfair), and so on, until you have circled one of the three letters for all ten sets of words under Black Power. Do the same for all items.

```
FILL IN THE NUMBER OF CIRCLE THE LETTER THAT APPLIES TO YOU.
                                                           1-2
 What is your pay grade?.....
                                                           3-4
 How many years have you been in the Navy? (round to the nearest year)....
 How many years of education did you have before joining the Navy?.....
                                                           5-6
                                                           7-8
 What is your age?....
                                                           9
 Are you assigned to a ship?.. A. Yes, B. No
 Are you:..... A. Male, B. Female
                                                           10
 Are you: ..... A. White, B. Black,
                                      C. Other
                                                           11
                                                           12
 Hometown:.... A. Urban, B. Suburban, C. Rural
 Where are you from?..... A. East, B. Midwest, C. South, D. Southwest,
                     E. West, F. Outside USA
1. ABCDEF 41. ABCDEF
                                       121. A B C D E 161. A B
                         81. ABCDEF
2. ABCDEF 42. ABCDEF
                         82. A B C D E F
                                      122. A B C D E 162. A B
                         83. ABCDEF
                                      123. A B C D E 163. A B
3. ABCDEF 43. ABCDEF
4. ABCDEF 44. ABCDEF
                         84. A B C D E F
                                      124. A B C D E 164. A B
5. ABCDEF 45. ABCDEF
                                      125. A B C D E 165. A B
                         85. A B C D E F
6. ABCDEF 46. ABCDEF
                         86. A B C D E F
                                      126. A B C D E 166. A B
7. ABCDEF 47. ABCDEF
                        87. ABCDEF 127. ABCDE 167. AB
8. ABCDEF 48. ABCDEF
                        88. A B C D E F 128. A B C D E 168. A B
9. ABCDEF 49. ABCDEF
                        89. A B C D E F 129. A B C D E 169. A B
10. ABCDEF 50. ABCDEF
                        90. A B C D E F 130. A B C D E 170. A B
11. ABCDEF 51. ABCDEF
                        91. A B C D E F 131. A B C D E 171. A B
12. ABCDEF 52. ABCDEF 92. ABCDEF 132. ABCDE 172. AB
13. ABCDEF 53. ABCDEF 93. ABCDEF 133. ABCDE 173. AB
14. ABCDEF 54. ABCDEF 94. ABCDEF 134. ABCDE 174. ___
15. ABCDEF 55. ABCDEF 95. ABCDEF 135. ABC
                                                   175. ___
16. ABCDEF 56. ABCDEF 96. ABCDEF 136. ABC
                        97. A B C D E F 137. A B C
17. ABCDEF S7. ABCDEF
18. ABCDEF 58. ABCDEF
                        98. A B C D E F
                                      138. A B C
19. ABCDEF 59. ABCDEF
                        99 ABCDEF 139. ABC
20. ABCDEF 60. ABCDEF 100. ABCDEF 140. ABC
21. ABCDEF 61. ABCDEF 101. ABCDEF 141. ABC
                                                  181.
22. ABCDEF 62. ABCDEF 102. ABCDEF 142. AB
                                                   182. A B
23. ABCDEF 63. ABCDEF 103. ABCDEF 143. AB
                                                  183. A B
24. ABCDEF 64. ABCDEF 104. ABCDEF 144. AB
                                                  184. A B
25. ABCDEF 65. ABCDEF 105. ABCDEF 145. AB
                                                  185. A B
26. ABCDEF 66. ABCDEF 106. ABCDEF 146. AB
                                                   186. A B
27. ABCDEF 67. ABCDEF 107. ABCDEF 147. AB
                                                   187. A B
28. ABCDEF 68. ABCDEF 108. ABCDEF 148. AB
                                                   188. A B
29. ABCDEF 69. ABCDEF 109. ABCDEF 149. AB
                                                   189. A B
30. ABCDEF 70. ABCDEF 110. ABCDEF 150. AB
                                                  190. A B
31. ABCDEF 71. ABCDEF 111. ABCDEF
                                      151. A B
                                                   191. A B
32. ABCDEF 72. ABCDEF 112. ABCDEF 152. AB
                                                   192. A B
33. ABCDEF 73. ABCDEF 113. ABCDEF 153. AB
                                                   193. A B
34. ABCDEF 74. ABCDEF 114. ABCDEF 154. AB
                                                   194. A B
35. ABCDEF 75. ABCDEF 115. ABCDEF 155. AB
                                                   195. A B
36. ABCDEF 76. ABCDEF 116. ABCDEF 156. AB
                                                   196. A B
37. ABCDEF 77. ABCDEF 117. ABCDEF 157. AB
                                                   197. A B C D
                                                   198. A B C D
38. ABCDEF 78. ABCDEF 118. ABCDEF 158. AB
                                                   199. A B C
39: ABCDEF 79. ABCDEF 119. ABCDE 159. AB
                                                   200. A B C
40. ABCDEF 80. ABCDEF 120. ABCDE
                                      160. A B
```

over ---

Cols

NAVY QUESTIONNAIRE ANSWER SHEET, SIDE 2

201. BLACK POWER	205. SINGING "DIXIE"
good A B C bad	good ABC bad
fair A B C unfair	fair A B C unfair
strong A B C weak	strong A B C weak
happy A B C sad	happy A R C sad
sweet A B C bitter	sweet A B C bitter
large A B C small	large A B C small
kind A B C cruel	kind A B C cruel
beautiful A B C ugly	beautiful A B C ugly
light A B C heavy	light A B C heavy nice A B C awful
nice A B C awful	nice A B C awful
202. CONFEDERATE FLAG	206. CLENCHED FIST SALUTE
good ABC bad	good ABC bad
fair A B C unfair	fair A B C unfair
strong A B C weak	strong A B C weak
happy A B C sad	happy A B C sad
sweet A B C bitter	sweet A B C bitter
large A B C small	large A B C small
kind A B C cruel	kind A B C cruel
beautiful A B C ugly	beautiful A B C ugly
light A B C heavy	light A B C heavy
nice A B C awful	nice A B C awful
203. THE U.S. NAVY	207. THE UNITED STATES
good A B C bad	good ABC bad
fair A B C unfair	fair A B C unfair
strong A B C weak	strong A B C weak
happy A B C sad	happy A B C sad
sweet A B C bitter	sweet A B C bitter
large A B C small	large A B C small
kind A B C cruel	large A B C small kind A B C cruel
kind A B C cruel beautiful A B C ugly	large A B C small kind A B C cruel beautiful A B C ugly
kind A B C cruel beautiful A B C ugly light A B C heavy	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy
kind A B C cruel beautiful A B C ugly	large A B C small kind A B C cruel beautiful A B C ugly
kind A B C cruel beautiful A B C ugly light A B C heavy	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy
kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 204. TWO-FINGER PEACE SIGN good A B C bad	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 208. AFRO HAIRCUIS good A B C bad
kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 204. TWO-FINGER PEACE SIGN good A B C bad fair A B C unfair	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 208. AFRO HAIRCUTS good A B C bad fair A B C unfair
kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 204. TWO-FINGER PEACE SIGN good A B C bad fair A B C unfair strong A B C weak	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 208. AFRO HAIRCUTS good A B C bad fair A B C unfair strong A B C weak
kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 204. TWO-FINGER PEACE SIGN good A B C bad fair A B C unfair strong A B C weak happy A B C sad	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 208. AFRO HAIRCUTS good A B C bad fair A B C unfair strong A B C weak happy A B C sad
kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 204. TWO-FINGER PEACE SIGN good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 208. AFRO HAIRCUTS good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter
kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 204. TWO-FINGER PEACE SIGN good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter large A B C small	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 208. AFRO HAIRCUTS good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter large A B C small
kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 204. TWO-FINGER PEACE SIGN good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter large A B C small kind A B C cruel	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 208. AFRO HAIRCUTS good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter large A B C small kind A B C cruel
kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 204. TWO-FINGER PEACE SIGN good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter large A B C small kind A B C cruel beautiful A B C ugly	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 208. AFRO HAIRCUTS good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter large A B C small kind A B C cruel beautiful A B C ugly
kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 204. TWO-FINGER PEACE SIGN good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter large A B C small kind A B C cruel	large A B C small kind A B C cruel beautiful A B C ugly light A B C heavy nice A B C awful 208. AFRO HAIRCUTS good A B C bad fair A B C unfair strong A B C weak happy A B C sad sweet A B C bitter large A B C small kind A B C cruel

ANY COMMENTS:

APPENDIX B

ITEM LIST

Item number	Item description	Assigned scale values
1-111	Attitudes	5-point scale; 1 = unfavorable attitude, 5 = favorable attitude, with 2, 3 and 4 as intermediate scale values
112 113	Objections Object to white Americans Object to black Americans	Do not object = 1, object = 0
119 120 121 122 123 124 125 126 127 128 129	Personal goals	Extremely important = 5, of no importance = 1
130 131 132	Prejudice effects Do black men treat you fairly? Does racial tension in the Navy cause problems for you personally? Affected by prejudice on the base?	Almost always = 5, almost never = 1 Almost never = 5, almost always = 1
133 134	Affected by prejudice off the base? When I talk about blacks, I usually use the word:	Blacks = 1, other = 0 Negroes = 1, other = 0 Colored = 1, other = 0 Some other word = 1, other = 0
135	Changes Attitude towards other races/ groups	Become more favorable = 3, become less favorable = 1
136 137	Race relations on the base/ship Race relations off the base/ship	Getting better = 3, getting worse = 1
138	Preferences Preference for some race in combat duty	No preference = 1, black/white = 0
139 140 141	Like whites more than blacks Preference for commanding officer Civilian neighborhood preference	No difference = 1, yes/no = 0 No preference = 1, black/white = 0 No preference = 3, integrated = 2, not integrated = 1

Item number	Item description	Assigned scale values
151 152 153 154 155 156	Ranks helpful	Helpful = 1, not helpful = 0
158 159 160	Free time Spent free time with blacks Spent free time with other minorities Spent free time with whites	Yes = 1, no = 0
161 162 163 164 165 166 167 168 169 170 171 172 173	Unfair treatment	No = 1, yes = 0
174 175 176 177 178 179 180 181	Fights seen	Number ranges from 0 to 9
182 183 184 185	Non-white clustering: Because: Want to be with their friends They seek protection They mean to threaten others They are excluded from white groups	Yes = 1, no = 0 No = 1, yes = 0

Item		Item	A		-1						
number		description	<u>A</u>	ssigned scale v	alues						
187 188 189 190	Rec	commendations	No = 1, yes = 0 Yes = 1, no = 0								
191 192 193 194 195			No = 1, yes Yes = 1, no No = 0, yes	0 = 0							
	D		•								
196	Pre	judice bothers me a great deal	True = 1 , f	talse = 0							
197 198 199 200	Rea	ctions	No = 3, dor	n't know = 2, ye	s = 1						
201-208 211-218 211-228 231-238 241-248 251-258 261-268 271-278	/220 /230 /240 /250 /260 /270	Two-finger peace sign Singing "Dixie" Clenched fist salute The United States	apply to ea	ing set of bi-pol ch concept liste : A = +1, B = 0, A B C A B C	d; the scale						

APPENDIX C COMPOSITE DESCRIPTIVE STATISTICS

APPENDIX C

COMPOSITE DESCRIPTIVE STATISTICS

Item		Non-whites don't feel they have to follow the rules as much as whites	Non-whites do not show proper respect for whites	with higher rank	Whites have good reason to distrust non-whites	If things continue they way they are going, the	blacks will get more than their fair share	Most non-whites tend to be lound and boisterous	Many non-whites have begun to act as if they are	superior to whites	Non-whites are trying to get ahead too fast	Whites have good reason to be angry	Trying to achieve integration is more trouble than	it's worth	Non-whites are less eager than whites to be promoted	to positions of responsibility	White officers have more trouble commanding black	enlisted men than black officers do	Most non-whites still need close supervision on	technical jobs	Non-whites don't take advantage of the educational	opportunities that are available to them	Non-whites frequently cry "prejudice" rather than	accept blame for personal faults	Calling attention to racial problems only makes things	Worse	Non-whites tend to segregate themselves	Non-whites should stay with their own groups	In the long run, dating between blacks and whites	does more harm than good
S.D.		1.06	1.04		1.07	1.11		1.18	1.11		1.11	1,15	1,15		1.07		1,02		1.00		0.97		1.07		1,11		1,10	1.00	1.12	
Mean ³		2.92	3.22		3,25	3,00		3.01	2.70		3,33	3.28	3.59		3,30		3,11		3,43		2.77		2.41		3.49		3.44	3.67	2.79	
T C		38	41		40	40		38	28		32	31	40		26		35		25		25		26		30		34	34	22	
Load		61	61		09	09		29	53		52	52	20		20		49		49		48		47		47		47	47	44	1:
Item		2 67	89		52	96		39	20		92	Ŋ	20		95		106		37		61		53		105		က	62	103	
of or	Racial	generalizations																												

¹ x 100 (decimal point omitted)
2 Communality, indicating percent of variance item has in common with other items in factor space 3 Based upon 5-point scale where 1 represents an "unfavorable" and 5 a "favorable" attitude

Item		Non-whites usually use a foreign language or special words in order to hide things from others	Allowing black Navy men to wear Afro haircuts amounts to preferential treatment	Non-whites are taking advantage of current social and political unrest to gain advantages for themselves		I think the Navy is the best military service in the world	The Navy is firmly committed to the principle of	equal opportunity	If the race problem can be solved anywhere, it can	be solved in the Navy	There is a good chance that the Navy can reduce	racial problems	The Navy is doing a very good job in trying to reduce	problems and tensions between groups	There is less racial prejudice in the Navy than in	civilian life	The Navy provides a good career opportunity for	members of minority groups	Most Navy officers try to be helpful with personal	matters	Most Petty Officers try to be helpful with personal	matters
S.D.		1.01	1.20	1.00		1,35	1.24		1.07		0.85		1.01		1.12		1.02		1.11		1.05	
Mean ³		3,11	3.00	2.62		3.04	3,20		3,26		3,60		3,15		3,39		3.69		3,39		3.24	
ha		20	24	19		39	34		32		35		31		29		28		23		22	
Load1		43	43	43		63	55		54		53		53		51		20		48		45	
Item	Composite 1: Racial	generalizations 29	57	82	Composite 2:	Navy climate 90	3		94		11		109		55		80		72		51	

Item	Non-whites have good reason to distrust whites Non-whites have good reason to be angry Members of minority groups have a harder time in	the Navy than the others Commanding officers should be more responsive	Whites should treat non-whites better than they do	The Navy should recognize that it is not always fair	to apply test standards to minority groups that have been developed for whites Non-whites should be more united in order to im-	prove things An unfairly large number of non-whites are assigned	to nontechnical jobs White Navy men are punished less severely than	non-whites for the same offenses In qualifying minorities for enlistment and technical	allowed for	The Navy should make a greater effort to assist non- whites to qualify for enlistment and technical ratings	Whites do not usually have to be as good as non- whites to be promoted in the Navy		Getting along well with everyone Treating others fairly and decently	Being a good example for others	Making a contribution to my country	Promoting equality and democracy	Helping others	D	being created tairty Becoming a better nerson	Living up to my beliefs	Doing my job well	Enjoying the
S.D.	1.14 1.14 1.05	1.06	1.05	1.18	1.06	1.06	1.10	1.15	,	1.21	1.11	1	0.97	0.94	1.10	0.95	0.79		0.77	0.75	0.79	
Mean ³	3.21 3.23 3.12	3.00	2.81	3.33	3.03	3.18	3.72	3.50	(2.94	3.66	ć	3.73	4.03	3.89	4.00	4.12		4.36		4.37	
2	30 29 25	30	32	22	22	23	24	23		7.7	22											
Load1	50 50 49	49	8 7	47	47	46	44	44	(43	41											
Item	24 44 99	89	45	82	47	31	15	59	(7.7	47		121	122	123	124	126	100		127	128	177
Composite 3.	Discrimination											Composite 4:*	outer -arrected	200				Composite 5:*	goals	0		

C-3

^{*}A priori grouping of items, not based on results of factor analysis

Item	Non-rated men 3rd-class Petty Officer 2nd-class Petty Officer	lst-class and Chief Petty Officers Limited duty and Warrant Officers Ensign, Lieutenant (jg), and Lieutenant Lt. Commander and above	Work assignments Promotion Discipline Liberty Legal matters Personal affairs	Officers in my section Petty Officers in my section Non-rated men in my section Officers outside my section Petty Officers outside my section Non-rated men outside my section Civilians	Between two white Navy men Between a white and a non-white Navy man Between two non-white Navy men Between two white Navy men Between a white and a non-white Navy man Between two non-white Navy man
S.D.	84. 84. 94.	. 50 . 50 . 50	.41 .35 .39 .39 .35	36 36 37 37 38 38 39 98	1.04 1.08 0.83 1.63 1.50
Mean ³	. 62	. 52 . 53 . 54	. 78 . 85 . 85 . 79		
ha	62 78 54	45 48 67 60	45 45 45 10 84	8 4 4 4 4 5 8 8 4 5 9 5 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	51 50 54 53 59
Load1	79 88 64	64 68 81 78	64 60 71 67 71 68	44 45 65 61 60 76 71	70 60 61 76 72
Item	151 152 153	154 155 156 156	161 162 163 164 165	167 168 169 170 171 172 173	174 175 176 177 178
•	Composite 6: Helpful lower ranks	Composite 7: Helpful upper ranks	Composite 8: Unfair treat- ment in	Composite 9: Unfair treat- ment by	Composite 10: Fights between Navy men

Item number Load ¹ h ² Mean ³ S.D.	180 88 78 .16 .78 181 87 77 .11 .58	187 75 57 .59 .49 195 70 50 .29 .45	188 67 47 .57 .50	189 67 53 .70 .46 191 63 48 .53 .50 192 57 37 .75 .43	193 85 77 .82 .38 194 88 78 .86 .35	197 85 72 2.13 .53	198 84 71 2.12 .54	199 80 64 1.97 .24 200 81 66 1.97 .24
Load ¹ h ² Mean ³ S.	88 78 .16 . 87 77 .11 .	75 57 .59 .49 70 50 .29 .45	. 67 47 .57 .50	67 53 .70 .46 63 48 .53 .50 57 37 .75 .43	85 77 .82 .38 88 78 .86 .35	85 72 2.13 .53 Be	84 71 2.12 .54	80 64 1.97 .24 81 66 1.97 .24
Item	en a white Navy man and a black civilian en a non-white Navy man and a white civilian	Stronger discipline Reduce racial tensions by having each man just do his job well.	White Navy men should spend more time learning about the problems of Navy men who are from	minority groups More association between black and white Navy men There should be more black officers The Navy should pay less attention to racial problems	More whites should recognize their own prejudices More blacks should recognize their own prejudices	Because I'm from a minority group, most of the whites in my section like me less than they like	the other whites Because I'm from a non-black minority group, the blacks in my section like me less than they like the other whites	How do you feel about whites? How do you feel about members of other minority groups?

Item	- Bad - Unfair - Weak - Sad - Bitter - Small - Cruel - Ugly		
	Good Fair Strong Happy Sweet Large Kind Beautiful		
S.D.	69.00.00.00.00.00.00.00.00.00.00.00.00.00	.69 .69 .69 .61 .62 .53	.63 .63 .67 .57 .61
Mean ³	44 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		. 59 . 59 . 25 . 11 . 25 . 32
64	55 04 42 46 05 05 05	59 29 449 64 62 61 62 69	61 26 58 26 66 64 62 66 66
Loadi	75 74 74 65 65 78 78 78	77 77 70 80 80 80 78 78	78 76 51 81 80 37 79 81
Item	201 202 203 204 205 206 207 208	211 212 213 214 214 215 217 217 218	221 222 223 224 225 226 227 230
Composite 17.	Black power	Composite 18: Confederate Flag	Composite 19: U.S. Navy

S.D.		.73	.68	.72	74	69	.71	63	.65	99		.62	.62	09	.67	09	56	50	.54	57		.72	70	.78	63	.59	.71	.59	.62	.62
Mean ³	•								.22							.18				.31		43	30	. 90.		56				
6		69	72	20	72	71	41	72	77	77		99	61	36	28	29	36	61	64	62		64	61	31	29	61	36	64	74	69
Load		83	85	71	82	84	64	82	88	∞ ∞		81	78	09	97	77	09	78	80	4		80	78	26	77	78	09	80	98	83
Item		231	232	233	234	235	236	237	238	240		241	242	243	244	245	246	247	248	250		251	252	253	254	255	256	257	258	260
	Composite 20:	Two-fingered	peace sign								Composite 21:	Singing "Dixie"					C	7			Composite 22:	Clenched fist	salute							

Item

	(
	ţ		_	
	ė	١	1	
	ì	•	3	,
þ	÷	•	w	ı

	S.D.		.46	. 60	.46	99°	. 62	.38	.61	.52	.54		.71	.74	.57	. 60	.53	.59	. 49	. 65	.61
	Mean ³		. 82	.65	. 82	.39	.34	. 86	.47	. 68	. 62		.19	.22	.13	.12	01	.14	.07	05	90.
	h ³		42	55	37	28	55	34	52	49	49		99	52	49	69	99	38	64	28	62
	Load1		65	74	61	9/	74	58	72	70	70		81	74	70	83	81	62	80	9/	42
Item	number		261	262	263	264	265	266	267	268	270		271	272	273	274	275	276	277	278	280
		Composite 23:	U.S.A.									Composite 24:	Afro haircuts								

APPENDIX D

CORRELATES OF MAJOR VARIABLES

TABLE D-1

CORRELATES OF RACIAL GENERALIZATIONS FOR ENLISTED WHITES

Vbl. number*	Description	Partial R**	Mean	Standard deviation	Z	**
C13	Improve conditions by greater B/W association	.21	2.28	1.26	888	.48
1102	Blacks mean to threaten others	.25	0.68	0.47	906	.46
167	C.O. preference	.12	0.79	0.41	306	.45
C24	Afro haircuts	.24	19.46	4.48	299	. 44
163	Relations on base	.20	2.03	0.68	868	.37
161	Call them "other"	24	0.19	0.39	307	35
162	Attitude change	.17	2.01	0.70	868	.40
165	Combat perference	.11	0.85	0.35	307	.42
C22	Clenched fist salute	.15	16.17	4.96	298	.34
89I	Civilian neighborhood perference	.14	2,11	0.91	904	.40
C12	Improve conditions by stronger discipline	.13	0.94	69°0	895	.17
157	Black treatment	•13	3,83	1.01	904	.36
	Multiple R	.77				

^{*!} indicates item; C indicates composite
**p < .001
***V denotes validity (or, simple r)

TABLE D-2

CORRELATES OF NAVY CLIMATE FOR ENLISTED WHITES

Vbl.		Partial		Standard		
number	Description	R*	Mean	deviation	z	>
C19	U.S. Navy	.40	20.14	4.54	298	.55
C7	Ranks helpful - upper	.24	1.92	1,48	884	.43
	Age	.16	23.21	5.49	886	.35
163	Relations on base	.18	2.03	0.68	868	.26
C8	Unfair treatment in	:15	4.82	1.62	901	.33
C4	Goals - outer directed	. 14	23.86	4.00	889	.39
C12	Improve conditions by stronger discipline	16	0.94	69.0	895	24
C22	Clenched fist salute	.16	16.17	4.96	298	.08
C10	10 Fights - military	15	3.00	4.56	809	14
	Multiple R	.71				

TABLE D-3

CORRELATES OF PERCEIVED DISCRIMINATION FOR ENLISTED WHITES

\Rightarrow	.41	.35	13	24	.21	14	21	
z	888	294	298	406	868	988	297	
Standard	1.26	3.83	4.54	0.48	0.68	5.49	3,88	
Mean	2.28	15.29	20.14	0.63	2.03	23.21	23.01	
Partial R*	.33	.25	12	16	.17	15	13	. 53
Description	Improve conditions by greater B/W association	Black power	U.S. Navy	Non-whites excluded	Relations on base	Age	U.S.A.	Multiple R
Vbl. number	C13	C17	C19	1103	163		C23	

 $^{^*}p \le 001$

TABLE D-4

	CORRELATES OF ATTITUDE CHANGE FOR ENLISTED WHITES	LITUDE CHA	NGE FOR E	NLISTED WHIT	TES	
Vbl.		Partial		Standard		
number	Description	R*	Mean	deviation	z	
C1	Racial generalizations	.25	61.21	12.03	668	.40
163	Relations on base	.17	2.03	0.68	868	.34
161	Call them "other"	.20	0.19	0.39	307	00°
C2	Navy climate	.13	28.51	5.68	897	.23
C17	Black power	.14	15.29	3,83	294	.24
	South	.13	0.23	0.42	906	60°
C13	Improve conditions by greater B/S					
	association	.12	2.28	1.26	888	.31
	Multiple R	.52				
*p < .001						

D-3

TABLE D-5

CORRELATES OF "CRITERIA" FOR ENLISTED BLACKS*

Attitude change .430 Relations on base .385 Navy climate .303 Goals - outer directed .281 Age
396 Confederate Flag .313 Racial generalizations300 Prejudice on base .279 Black power .268 Call them blacks .220 Goals - inner directed
Navy climate .572 U.S. Navy .538 Yrs active duty .521 Age .489 Goals - outer directed .417 Black power .385 Attitude change .376 Fights - military .374 Like whites more than blacks .353 Prejudice on base .354 Call them negroes .355 Relations on base .325 Relations on base .293 Vrs education .267 Goals - inner directed .259 Relations off base
Racial generalizations .350 Call them blacks .321 Improve conditions by greater B/W association .313 Discrimination .311 Goals - outer directed .306 Bothered by prejudice .306 Bothered by coals - inner directed .276 Object to blacks 268 U.S.A.

*Simple validity between criteria and predictor variables, $p \le .001$

TABLE D-6

CORRELATES OF RACIAL GENERALIZATIONS FOR OFFICERS

	.44	.36	.37	.25	.25	.35	. 29		.38	.17	
Z	275	285	293	295	292	293	292		292	288	
Standard	3.84	0.74	0.38	0.49	0.72	0.41	0.68		1.20	2.83	
Mean	18.24	2.15	0.82	0.61	4.59	0.22	0.54		3.05	25.45	
Partial R*	.34	.23	.20	.25	.25				.17	.15	.71
Description	Afro haircuts	Relations on base	C.O. preference	Blacks mean to threaten others	Black treatment	Objection to blacks	Improve conditions by stronger discipline	Improve conditions by greater B/W	association	Goals - outer directed	Multiple R
Vbl.	C24	163	167	1102	157	145	C12	C13		C4	

TABLE D-7

CORRELATES OF NAVY CLIMATE FOR OFFICERS

	.30	.07	.22
Z	288 278	292 295	277
Standard deviation	2.83	1.20	2.66
Mean	25.45 34.83	3.05	23.41
Partial R*	.34	.22	. 48
Description	Goals - outer directed Discrimination	improve conditions by greater b/w association Midwest	U.S. Navy Multiple R
Vbl. number	C 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		C19

TABLE D-8

CORRELATES OF PERCEIVED DISCRIMINATION FOR OFFICERS

Vbl.		Partial		Standard		
number	Description	R *	Mean	deviation	Z	\wedge
C13	Improve conditions by greater B/W					
	association	.32	3.05	1.20	292	.47
C2	Navy climate	30	34.75	3.62	291	27
C24	Afro haircuts	.20	18.24	3.84	275	.42
1103	Non-whites excluded	24	0.55	0.50	294	-,37
C17	Black power	.26	14.67	3.57	275	.43
C18	Confederate Flag	22	16.82	3,43	276	-,21
I62	Attitude change	.16	2.32	0.64	292	.24
	Multiple R	.70				

TABLE D-9

CORRELATES OF ATTITUDE CHANGE FOR OFFICERS

			.24	.23	.01	.16	.15	
		z	278	285	275	288	272	
OFFICERS	Standard	deviation	7.25	0.74	3.57	0.76	3.76	
CONNELATES OF ATTITUDE CHANGE FOR OFFICERS		Mean	34.83	2.15	14.67	4.28	14.15	
	Partial	R*	.25	.21	22	.17	16	.40
		Description	Discrimination	Relations on base	Black power	Like minorities less	Clenched fist salute	Multiple R
	Vb1.	number	C3	I63	C17	C15	C22	

p < .01

APPENDIX E LIST OF ITEMS DELETED FROM ORIGINAL QUESTIONNAIRE

APPENDIX E

LIST OF ITEMS DELETED FROM ORIGINAL QUESTIONNAIRE*

1, 2	63-66
4	69 - 71
6-10	73
13, 14	75
16-19	77 - 79
21-23	81
25	83,84
27, 28	86-88
30	91-93
3 2	97,98
34-36	100-102
38	104
40-43	107, 108
45,46	110, 111
48, 49	114-118
56	142-150
58	186
60	190

^{*}Those numbered between 1 and 111 were deleted from the first 111 attitude items which were statements about race, society, and the Navy

V15206

CENTER FOR NAVAL AMALYSES

1401 Wilson Boulevard Arlington, Virginia 22209